



**Department of Energy**  
Washington, DC 20585  
May 2, 2005

Edwin Piñero  
Federal Environmental Executive  
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Dear Mr. Piñero:

Enclosed please find the Department of Energy's Implementation Plan prepared in response to the recommendations of the President's Management Council, pursuant to its Environmental Compliance Management Improvement Initiative. As the Department's Agency Environmental Executive (and its Designated Agency Environmental Compliance Officer), I look forward to continuing to work with you to enhance the Department's environmental performance.

Sincerely

A handwritten signature in black ink, appearing to read "J. Spitaleri Shaw".

John Spitaleri Shaw  
Assistant Secretary for  
Environment, Safety and Health

Enclosure

# **Implementation Plan**

*in response to the*

## **Environmental Compliance Management Improvement Initiative**

*of the President's Management Council*



**U. S. Department of Energy**

**April 2005**

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**Department of Energy Implementation Plan**  
*in response to the*  
**Environmental Compliance Management Improvement Initiative**  
*of the President's Management Council*

The Department of Energy's Implementation Plan identifies five priority areas for action pursuant to the recommendations of the President's Management Council (PMC) in its Environmental Compliance Management Improvement Initiative.

The Department of Energy (DOE) operates numerous large and complex facilities. Almost all DOE facilities are operated by private contractors. Our policies and procedures, as well as this Implementation Plan, reflect this fact.

Unless otherwise noted, Departmental Environment, Safety and Health (ES&H) Policy Guidance and Orders apply to the activities of all elements of the Department, including the National Nuclear Security Administration (NNSA).

Within the Department of Energy, the National Nuclear Security Administration (NNSA) is a semi-autonomous agency responsible for:

- maintaining and enhancing the safety, security, reliability and performance of the U.S. nuclear weapons stockpile without nuclear testing;
- working to reduce global danger from weapons of mass destruction;
- providing the U.S. Navy with safe and effective nuclear propulsion; and
- responding to nuclear and radiological emergencies in the U.S. and abroad.

The NNSA is the government agency "landlord" responsible for compliance at the eight sites that comprise our nation's current nuclear weapons complex.

The approach that will be used by the Department, including NNSA, in this Implementation Plan is to establish an internal, inter-office work group to collect data and develop appropriate guidance for improving compliance processes throughout the entire DOE complex, within the framework of our existing requirements and directives. The Assistant Secretary for Environment, Safety and Health, in his role as the Department's Agency Environmental Executive, will invite each of the Department's line organizations, including the National Nuclear Security Administration, as well as appropriate staff offices, to identify members for the work group. (Headquarters organizations may involve field office staff as appropriate.) The Department's Office of Environment, Safety and Health will work in concert with the Office of the Management, Budget and Evaluation and the Office of Independent Oversight and Performance Assurance to facilitate work group efforts.

We have identified five priority areas for action:

### **1. State management's expectations**

The Department, including NNSA, conveys requirements for compliance with environmental laws and regulations in policy directives and in contracts for the operation of its facilities. DOE and NNSA will continue to emphasize a commitment to full environmental compliance both internally and externally. To this end, the Department and NNSA will also develop appropriate guidance to highlight this commitment in their Strategic Planning and budget processes.

### **2. Identify root causes for non-compliance**

The Department, including NNSA, has a long track record of complying with the environmental laws and regulations applicable to its operations. Nevertheless, there have been a number of environmental non-compliances, of varying severity. As part of this Implementation Plan, DOE, including NNSA, will undertake efforts to better understand the root cause(s) of the various non-compliances, and will reflect the knowledge gained in the development of any needed follow-on guidance and coordinated efforts for attaining and maintaining compliant operations.

### **3. Improve environmental audit and corrective action processes**

Key to maintaining mature compliance systems are systematic processes for assessing compliance and for assuring that corrective action is taken when issues are identified. Based on a review of how these processes are currently implemented, guidance for improvement will be prepared and issued.

### **4. Improve the collection and use of environmental performance data**

DOE, NNSA, and their contractors collect a variety of environmental performance data. DOE and NNSA will identify what data are being used to measure compliance performance, and how compliance performance information is utilized, and will provide recommendations on how to ensure that the flow of environmental performance information within DOE/NNSA organizations permits their senior managers to be regularly updated on the status of their sites' compliance status and progress on any needed corrective actions.

### **5. Identify and share best practices and lessons learned**

As a leader in environment, safety and health protection in the Federal Government, DOE, including NNSA, wants to share lessons learned and best practices not only among our sites, but also with other Federal agencies.

The following sections describe our proposed actions within each area. Each section identifies which PMC recommendations are addressed within that area. Each section also summarizes what DOE, including NNSA, is already doing in that area. Dates are indicated for planning purposes, but are subject to revision.

The Attachment to this Implementation Plan identifies, for each PMC recommendation, the policies and processes already in place which address that recommendation.

Note: In this Implementation Plan, the recommendations from the PMC Report are included verbatim, with the following editorial modifications: (1) the term “Agency” has been replaced by “DOE/NNSA,” and (2) the terms “Bureau,” “Service,” and “Sub-Agency” have been replaced by “DOE/NNSA Program Element”; this term is intended to encompass the Power Administrations.

## 1. State Management's Expectations

*The Department, including NNSA, conveys requirements for compliance with environmental laws and regulations in policy directives and in contracts for the operation of its facilities. DOE and NNSA will continue to emphasize a commitment to full environmental compliance both internally and externally. To this end, the Department and NNSA will also develop appropriate guidance to highlight this commitment in their Strategic Planning and budget processes.*

### **What We are Already Doing:**

DOE P 450.7 *DOE Environment, Safety and Health Goals* states that DOE's ultimate ES&H goal is zero accidents, work-related injuries and illnesses, regulatory enforcement actions, and reportable environmental releases. These goals set out the expectation that DOE and contractor personnel ensure that "respect for the environment and protection of public health and safety are paramount in all" Departmental activities performed as exhibited in daily work activities, operational performance regarding regulatory enforcement actions, and environmental releases.

DOE P 450.5 *Line Environment, Safety and Health Oversight* lays out the key elements of line management's oversight process for environment, safety and health. Federal line managers are responsible for oversight of contractor performance. Contractor self-assessment program are to include elements which address compliance with applicable requirements.

DOE P 450.2A *Identifying, Implementing and Complying with Environment, Safety and Health Requirements* sets forth the framework for identifying, implementing and complying with environment, safety and health requirements including "identification of all applicable statutory and regulatory requirements."

Assistant Secretary for Environment, Safety and Health John Spitaleri Shaw on February 16, 2005, sent a memorandum to all Secretarial Officers and Heads of Field Organizations underscoring the importance of senior managers remaining engaged in an effective program to comply with the National Environmental Policy Act.

DOE's current Strategic Plan emphasizes achieving environmental protection through activities that accelerate risk reduction.

DOE O 413.1A *Management Control Program* states that all DOE Headquarters and field line managers are responsible for "Assuring compliance with Federal, State, and local environmental protection statutes and related Departmental Orders and regulations."

DOE O 450.1 *Environmental Protection Program* requires implementation of Environmental Management Systems (EMSs) that provide for "the systematic planning, integrated execution, and evaluation of programs for ... compliance with applicable environmental protection requirements." The Order requires DOE, including NNSA, site managers to "ensure that site annual budget processes include the funding and resources needed to implement this Order". It requires Program Secretarial Officers and the Administrator for NNSA to "request through the annual Departmental budgetary process, the funding and resources needed for implementing the requirements of this Order and funding to address

findings and recommendations from oversight and self-assessment activities conducted in accordance with DOE P 450.5.”

DEAR 970.5204-2(a) & (e) require DOE and NNSA contractors to comply with environmental laws and regulations.

[Note that the budget for Bonneville Power Administration (BPA) is based on a rate case and is not part of DOE’s budget formulation. BPA’s budget incorporates environmental compliance as a part of doing business.]

## Action Plan

**Action 1a:** The Assistant Secretary for Environment, Safety and Health issues a message reaffirming DOE’s commitment to environmental compliance. The NNSA Administrator or his deputy endorses this message or issues one similar in nature.

- ✓ Deputy Assistant Secretary for Environment drafts message.
- ✓ Assistant Secretary for Environment, Safety and Health issues a DOE-wide message. The NNSA Administrator or his deputy endorses this message or issues one similar in nature. (June 30, 2005).

*We have succeeded if:* The Assistant Secretary for ES&H, and NNSA, issue a message affirming the importance DOE and NNSA place on compliance with environmental requirements applicable to their operations.

**Action 1b:** Top management at each DOE and NNSA site reaffirms its commitment to achieving and maintaining environmental compliance.

- ✓ Operations/Site/Field Office Managers issue a statement to employees and contractors emphasizing DOE’s and NNSA’s commitment to environmental compliance. Senior field managers encourage their contractor top management to make a similar reaffirmation. (December 31, 2005)
- ✓ This action can be met when a site EMS includes a formal Policy Statement (for environment or for environment, safety and health) that includes a commitment to compliance with environmental requirements applicable to its operations.

*We have succeeded if:* Operations/Site/Field Office managers of DOE/NNSA sites issue a statement during CY 2005 reaffirming their commitment to achieve and maintain environmental compliance.

**Action 1c:** Explore opportunities to clearly link ES&H activities (including environmental compliance) to the achievement of the missions of DOE and NNSA.

- ✓ Work group develops planning guidance for use in developing the next iteration of DOE’s Strategic Plan, which is due in September 2006. (August 30, 2005).
- ✓ Work group develops approaches for how ES&H contributions to achievement of DOE and NNSA missions could be described in top-level Strategic Plans.



- ✓ DOE/NNSA elements explore opportunities for including ES&H activities (including environmental compliance) in the strategic plans of all DOE elements.

*We have succeeded if:* The Work Group's output is incorporated into the guidance for developing the revised DOE Strategic Plan, and in future revisions of DOE/NNSA Program Element-level strategic plans.

**Action 1d:** Explore opportunities to highlight environmental compliance in DOE/NNSA budget planning.

- ✓ Work Group identifies and recommends appropriate language for inclusion in the annual Budget Call, which emphasizes the responsibility of line management to ensure that environment, safety and health requirements are adequately addressed in the budget preparation process. (July 1, 2005)

*We have succeeded if:* ES&H issues are adequately addressed in future DOE and NNSA budget planning and guidance documents.

- ✓ DOE and NNSA will evaluate and respond to direction from the Office of Management and Budget (OMB) to implement changes developed in response to the second PMC Administration-Level Recommendation.

*We have succeeded if:* Appropriate changes are made in a timely manner.

#### **PMC Recommendations Addressed:**

- Affirm Administration policy regarding commitment to environmental compliance and enhanced program performance. (Recommendation D-1)
- Ensure alignment and integration of Administration environmental policy with [DOE/NNSA] strategic plans and policies within the context of [DOE/NNSA] mission. (Recommendation D-2)
- Ensure that [DOE/NNSA] budgeting systems identify environmental program requirements and that [DOE/NNSA] accounting systems properly identify and dedicate environmental management funding. (Recommendation D-3)
- Provide budget/program-planning guidance to improve environmental compliance management programs. (Recommendation D-4)
- Align budget and funding procedures to recognize and respond to identified programmatic needs for support of environmental compliance management and enhanced program performance. (Recommendation D-7)
- Ensure adequate resources are planned and allocated across [DOE/NNSA] to foster improved environmental compliance management and program performance. (Recommendation D-9)
- Affirm and forward [DOE/NNSA] environmental compliance management and performance enhancement goals and objectives to appropriate levels and functions within [DOE/NNSA Program Elements]. (Recommendation P-1)
- Ensure alignment of [DOE/NNSA Program Elements] mission related operating plans and environmental programs with [DOE/NNSA] environmental compliance management and performance enhancement goals. (Recommendation P-2)

- Ensure programmatic resources are provided to facilities that will lead to improved environmental compliance management and enhanced environmental program performance. (Recommendation P-6)
- Align established budget procedures to recognize and support environmental compliance management. (Recommendation P-9)
- Develop funding requests for submission to [DOE/NNSA] level for environmental program improvements based on identified opportunities to improve environmental compliance management. (Recommendation P-13)
- Develop funding requests for submission to [DOE/NNSA] level for environmental program improvements based on identified facility-level compliance findings. (Recommendation P-14)
- Include in the site/facility level EMS, a commitment to environmental compliance and other policies, goals, and commitments established by [DOE/NNSA or Program Elements]. (Recommendation F-1)
- Align budget guidelines, procedures, and processes to 1) elicit proposals for agency environmental compliance management improvements; 2) recognize agency budget requests regarding these improvements and; 3) support those requests where appropriate (OMB). (Recommendation A-2)

## 2. Identify Root Causes For Non-Compliance

*The Department, including NNSA, has a long track record of complying with the environmental laws and regulations applicable to its operations. Nevertheless, there have been a number of environmental non-compliances, of varying severity. As part of this Implementation Plan, DOE, including NNSA, will undertake efforts to better understand the root cause(s) of the various non-compliances, and will reflect the knowledge gained in the development of any needed follow-on guidance and coordinated efforts for attaining and maintaining compliant operations.*

### **What We Are Already Doing:**

DOE O 231.1A *Environment, Safety, and Health Reporting* and DOE M 231.1-2 *Occurrence Reporting and Processing of Information* establish an occurrence reporting program to ensure appropriate and timely identification, categorization, response, notification, investigation, reporting, and analysis of abnormal conditions and events affecting health, safety, or the environment. Under the Occurrence Reporting and Processing System (ORPS), all but the least significant events require analysis of root causes, implementation of corrective action, and identification of lessons learned.

DOE O 450.1 *Environmental Protection Program* requires that DOE's Office of Independent Oversight and Performance Assurance "evaluate the effectiveness of DOE Headquarters and field organization implementation" of the Order.

DOE's Office of Analytical Studies (EH-32, under the Deputy Assistant Secretary for Corporate Performance Assessment) has as its mission to "evaluate DOE's effectiveness, vulnerabilities, and trends in protecting the public, workers and the environment."

### **Action Plan**

**Action 2:** Undertake a root cause analysis of major DOE/NNSA non-compliances.

- ✓ EH, the NNSA ES&H Advisor, and the Work Group, collect data on trends in environmental non-compliances for the past five years through a review of existing data (including the Occurrence Reporting and Processing System (ORPS)), review of Environmental Protection Agency (EPA) databases, and review of other Program Office and NNSA compliance data. (September 30, 2005).
- ✓ EH and Departmental and NNSA representatives work with Program Offices and NNSA, and with DOE sites, using ORPS and other sources, to identify trends and root causes of DOE's compliance violations. (April 15, 2006)
- ✓ EH makes a request to EPA's Office of Federal Facilities Enforcement to obtain assistance in drawing on EPA's database to address hypotheses about the root causes of significant non-compliances at DOE/NNSA facilities.
- ✓ If appropriate, EH, in cooperation with Program Offices and NNSA, develops recommendations for new guidance which addresses the trends or root causes identified. (July 15, 2006).

*We have succeeded if:* The recommendations for guidance enhance understanding of instances of noncompliance and lead to actions to avoid future notices of violation and improve compliance.

**PMC Recommendations Addressed:**

- Utilize environmental compliance management performance information to inform management and funding decision-making processes and improve environmental compliance management and environmental performance. (Recommendation D-6)
- Review environmental compliance management status, successes and failures to inform [DOE/NNSA] management decision-making and implement corrective actions towards environmental compliance management improvement. (Recommendation D-12)
- Evaluate environmental compliance management with regard to funding requested and funding received to identify the implications of funding disparities on environmental management programs. (Recommendation D-13)
- Develop and implement processes for corrective actions that remedy findings of environmental compliance management concerns and non-compliance. (Recommendation P-12)
- Collect facility level information regarding environmental program management status, successes and failures to inform management decisions. (Recommendation P-18)

### 3. Improve Environmental Audit And Corrective Action Processes

*Key to maintaining mature compliance systems are systematic processes for assessing compliance and for assuring that corrective action is taken when issues are identified. Based on a review of how these processes are currently implemented, guidance for improvement will be prepared and issued.*

#### **What We Are Already Doing:**

DOE P 450.4 *Safety Management System Policy*, identifies one of five Core Functions of DOE's Integrated Safety Management System as: "Provide Feedback and Continuous Improvement." "Feedback information on the adequacy of controls is gathered, opportunities for improving the definition and planning of work are identified and implemented, line and independent oversight is conducted ...."

DOE P 450.5 *Line Environment, Safety and Health Oversight* lays out the key elements of line management's oversight process for environment, safety and health. Federal line managers are responsible for oversight of contractor performance. Contractor self-assessment program are to include elements which address compliance with applicable requirements, as well as feedback and performance improvement.

DOE P 450.7 *Department of Energy Environment, Safety and Health (ES&H) Goals* directs that "A rigorous assessment program shall be established that provides sufficient data to determine within desired confidence levels that program goals for ES&H are being achieved, that corrective actions and opportunities for improvement are being identified and implemented.... The assessments will provide a status of performance and corrective actions, if any."

DOE O 450.1 *Environmental Protection Program* requires that DOE and NNSA "ensure the early identification of, and appropriate response to, potential adverse environmental impacts associated with DOE operations, including, as appropriate, preoperational characterization and assessment, and effluent and surveillance monitoring." The Order also requires self-assessments and independent evaluation by DOE's Office of Independent Oversight and Performance Assurance.

#### **Action Plan**

**Action 3:** Identify current DOE/NNSA processes and practices for conducting environmental compliance audits and taking corrective actions, to meet the intent of existing DOE directives (including DOE P 450.5). Develop recommendations for appropriate guidance, within the framework of existing DOE directives, to address any concerns identified.

- ✓ EH, the NNSA ES&H Advisor, and the Work Group systematically collect information on the policies, procedures, and practices at DOE/NNSA sites (a) for conducting environmental compliance assessments/audits, and (b) for tracking and closing out corrective actions for compliance-related audit or assessment findings. (This request will be developed in consultation with the

Office of Independent Oversight and Performance Assurance). (September 1, 2005)

- ✓ Program Offices provide information for each site. (December 15, 2005)
- ✓ Work Group prepares a processes and practices summary report. (April 30, 2006)
- ✓ If appropriate, Work Group develops recommendations concerning guidance to improve compliance audits and corrective action processes at DOE/NNSA sites. (August 30, 2006)

*We have succeeded if:* The review is useful for validating current compliance audit and corrective action processes, and identifying any additional guidance necessary to improve this process.

**PMC Recommendations Addressed:**

- Utilize environmental compliance management performance information to inform management and funding decision-making processes and improve environmental compliance management and environmental performance. (Recommendation D-6)
- Review environmental compliance management status, successes and failures to inform [DOE/NNSA] management decision-making and implement corrective actions towards environmental compliance management improvement. (Recommendation D-12)
- Identify opportunities for environmental compliance management performance improvement using information gathered from [DOE/NNSA Program Elements] oversight as well as facility level checking and reporting procedures. (Recommendation P-11)
- Develop and implement processes for corrective actions that remedy findings of environmental compliance management concerns and non-compliance. (Recommendation P-12)
- Collect facility level information regarding environmental program management status, successes and failures to inform management decisions. (Recommendation P-18)
- Develop and implement processes to periodically assess compliance of facilities within the [DOE/NNSA Program Elements] and use that information for corrective action and improvement. (Recommendation P-19)
- Monitor environmental compliance corrective action plans to ensure resources are available and are applied and adequately address identified compliance concerns. (Recommendation P-20)

#### 4. Improve the Collection and Use of Environmental Performance Data

*DOE, NNSA, and their contractors collect a variety of environmental performance data. DOE and NNSA will identify what data are being used to measure compliance performance, and how compliance performance information is utilized, and will provide recommendations on how to ensure that the flow of environmental performance information within DOE/NNSA organizations permits their senior managers to be regularly updated on the status of their sites' compliance status and progress on any needed corrective actions.*

##### **What We Are Already Doing:**

DOE P 450.7 *Department of Energy Environment, Safety and Health (ES&H) Goals* calls for DOE/NNSA to establish and use "appropriate performance measures."

DOE P 450.5 *Line Environment, Safety and Health Oversight* calls for the inclusion of "performance measures and performance indicators" in ES&H management systems at DOE/NNSA sites.

DOE M 411.1-1C *Safety Management Functions, Responsibilities, and Authorities Manual* defines safety management functions, responsibilities, and authorities for DOE and NNSA senior management with responsibilities for line, support, oversight, and enforcement actions.

DOE O 413.1A *Management Control Program* states that all DOE Headquarters and field line managers are responsible for "Assuring compliance with Federal, State, and local environmental protection statutes and related Departmental Orders and regulations."

DOE O 450.1 *Environmental Management Program* establishes a requirement for the Director of Management, Budget and Evaluation to "include, as appropriate, the successful implementation of EMSs in the position descriptions and performance evaluations for Senior Executive Service and career Headquarters managers and operations/field/site office managers."

DOE's Under Secretary for Energy, Science and Environment conducts quarterly ES&H review meetings with the Program Secretarial officers who report to him. At these meetings, the Program officials describe the environment, safety and health performance of their programs.

Within the NNSA, a quarterly review of nuclear safety ES&H matters is held on a quarterly basis by the Deputy Administrator for Defense Programs who has authority for all nuclear safety and ES&H matters and is the Lead Program Secretarial Officer for all eight NNSA Nuclear Weapons Complex sites. Following his quarterly review with the individual Site Managers the Deputy Administrator for Defense Programs provides a nuclear safety ES&H progress and status report for the Nuclear Weapons Complex to the Administrator and Principal Deputy Administrator.

In addition, the NNSA's Environment, Safety and Health Advisor independently monitors the implementation and execution of NEPA, nuclear safety, ES&H and quality assurance related polices as well as Price Anderson Amendments Act Enforcement Actions across the Nuclear Weapons Complex and discusses the status and progress in these areas with the Administrator and Principal Deputy Administrator on a monthly basis.

## Action Plan

**Action 4a:** Identify environmental performance metrics currently in use throughout DOE and NNSA, and recommend improvements.

- ✓ EH, the NNSA ES&H Advisor, and the Work Group compile environmental performance metrics in use by DOE/NNSA and their contractors for management and reporting at all levels (including those to satisfy milestones and requirements by EPA and states, those incorporated in contracts, site-specific ES&H performance measures established pursuant to DOE P 450.7, and other metrics used in DOE/NNSA performance assessments.) (November 30, 2005)
- ✓ The Work Group investigates expanding the use of environmental performance metrics in existing reporting mechanisms, including:
  - (1) quarterly ES&H reviews for Program Office and NNSA managers;
  - (2) DOE's Consolidated Quarterly Performance Report, which is reviewed by the Department's senior management;
  - (3) DOE's annual Performance and Accountability Report, which is submitted to Congress and made available to DOE's stakeholders.
- ✓ The work group prepares a report that summarizes metrics currently in use, discusses options to streamline and improve metrics and related reporting, and proposes any potential new metrics that might enhance management or reporting of environmental performance. (April 15, 2006)

*We have succeeded if:* The Work Group's activities and products provide DOE/NNSA managers a better understanding of environmental performance metrics currently in use and options to improve the use of environmental performance metrics.

**Action 4b:** Ensure that environmental protection, including environmental compliance, is incorporated in DOE and NNSA implementation of DOE Policy 450.7.

- ✓ EH, the NNSA ES&H Advisor and the Work Group compile and review the Program Secretarial Office and NNSA ES&H performance goals and site-specific performance measures established by DOE elements including NNSA under DOE P 450.7, to identify inclusion of environmental goals. (July 1, 2005)
- ✓ If needed, the Work Group prepares recommendations for additional guidance for inclusion of environmental goals in the responses to DOE P 450.7. (December 31, 2005)

*We have succeeded if:* Environmental protection is addressed in each DOE and NNSA Program Office's implementation of DOE P 450.7.

**Action 4c:** Explore how ES&H performance metrics (including environmental compliance) are tracked, and how this process might be improved.

- ✓ EH, the NNSA ES&H Advisor and the Work Group work with DOE and NNSA office responsible for program analysis and evaluation to develop strategies on how ES&H performance metrics may be tracked. (June 30, 2006)



*We have succeeded if:* Current practices for reporting on ES&H metrics are validated or appropriate recommendations for improvement are developed.

**Action 4d:** Participate in the Council on Environmental Quality (CEQ) effort to develop guidance for environmental compliance management and environmental program performance metrics to allow measurement of agency progress, as well as to develop and implement a mechanism to compile and report on overall environmental compliance management progress and environmental program performance in Federal agencies.

- ✓ EH will coordinate with the NNSA ES&H Advisor to represent Department-wide interests in supporting the CEQ effort, recommended in the PMC Report, to develop guidance for environmental compliance management and environmental program performance metrics to allow measurement of agency progress, as well as to develop and implement a mechanism to compile and report on overall environmental compliance management progress and environmental program performance in Federal agencies.
- ✓ EH, in coordination with the NNSA ES&H Advisor, will continue to work through the Interagency Environmental Leadership Workgroup (established under E.O. 13148) to support the efforts of CEQ and the Federal Environmental Executive to identify performance measures and reporting mechanisms.

*We have succeeded if:* Guidance is available for effective measurement and reporting of environmental management programs and environmental program performance that is useful to DOE/NNSA and meets the needs of the Federal Environmental Executive and CEQ.

**Action 4e:** Consistent with any action by the Office of Personnel Management (OPM) to implement changes in response to the PMC Recommendation, DOE and NNSA will explore how environmental performance metrics (including environmental compliance) can be incorporated in individual performance ratings.

- ✓ ME reviews any action by OPM in response to the PMC's Administration-level Recommendation.
- ✓ ME makes appropriate revisions to DOE policy or practice to ensure consistency with OPM actions.

*We have succeeded if:* DOE and NNSA make appropriate changes in a timely manner.

**PMC Recommendations Addressed:**

- Provide guidance metrics for environmental program performance, including compliance management and other information necessary to respond to Administration level metrics. (Recommendation D-5)
- Utilize environmental compliance management performance information to inform management and funding decision-making processes and improve environmental compliance management and environmental performance. (Recommendation D-6)
- Align/incorporate environmental compliance management factors into accountability elements and roles and responsibilities for senior and mid-level management

personnel to ensure awareness of and support for implementation of environmental program management goals. (Recommendation D-10)

- Include environmental program performance metrics in existing management information collection processes to identify, collect and report to Administration level of [DOE/NNSA] performance relative to programmatic goals and strategic plans. (Recommendation D-11)
- Review environmental compliance management status, successes and failures to inform [DOE/NNSA] management decision-making and implement corrective actions towards environmental compliance management improvement. (Recommendation D-12)
- Gather, compile, and review facility level environmental compliance management performance metrics for reporting to [DOE/NNSA] level. (Recommendation P-15)
- Align/incorporate environmental compliance management and environmental program enhancement factors in accountability elements and roles and responsibilities for senior and mid-level management to ensure support for environmental compliance management goals. (Recommendation P-16)
- Collect facility level information regarding environmental program management status, successes and failures to inform management decisions. (Recommendation P-18)
- Develop and implement a mechanism to compile and report on overall environmental compliance management progress and environmental program performance in the Federal government in order to improve and enhance performance (CEQ). (Recommendation A-8)
- Align/incorporate environmental compliance management factors into “Results Driven,” Key Characteristics of Executive Core Qualifications, for Federal senior management at the SES level and above (OPM). (Recommendation A-6)

## 5. Identify and Share Best Practices and Lessons Learned

*As a leader in environment, safety and health protection in the Federal Government, DOE, including NNSA, wants to share lessons learned and best practices not only among our sites, but also with other Federal agencies.*

### **What We Are Already Doing:**

DOE maintains several ongoing lessons learned programs for environment, safety, and health, including:

- a. Society for Effective Lessons Learned ([www.eh.doe.gov/ll/sells](http://www.eh.doe.gov/ll/sells))
- b. National Environmental Policy Act Lessons Learned Quarterly Report ([www.eh.doe.gov/nepa](http://www.eh.doe.gov/nepa))
- c. Office of Fossil Energy Environment, Security, Safety and Health Best Practices Database
- d. Energy Facility Contractors Group (EFCOG) Best Practices Database.

DOE's Office of Performance Assessment and Quality issues a biweekly Operating Experience Summary addressing environment, safety and health issues.

To ensure timely sharing of best practices and lessons learned between NNSA and the remainder of the DOE community, the NNSA's Environment, Safety and Health Advisor attends the DOE quarterly ES&H review conducted by the Under Secretary for Energy, Science and Environment and presents a brief summary of items of note in the quarterly report from the Deputy Administrator for Defense Programs to the Administrator.

### **Action Plan**

**Action 5a:** DOE/NNSA will identify and share examples of DOE/NNSA environmental best practices and lessons learned.

- ✓ Work Group members will solicit examples of compliance-related best practices and lessons learned from sites in their programs across the DOE complex.
- ✓ Work Group will interface with Site Managers to review site Environmental Management System (EMS) documentation to identify "notable practice" examples of policies and procedures related to environmental compliance, such as how compliance requirements are maintained and how they flow down through the organization.

*We have succeeded if:* The work group review identifies ways that DOE site EMSs are adequately addressing environmental compliance, and generates ideas for continuous improvement in this area.

- ✓ EH and the NNSA ES&H Advisor will compile and share best practices and lessons learned from these reviews into a form useful to DOE Program Offices and NNSA HQ, and to site managers. (June 30, 2006)

- ✓ EH, the NNSA ES&H Advisor and the Work Group will develop a process, and guidance as appropriate, to encourage identification and sharing of environmental best practices and lessons learned, and to use DOE's existing lessons-learned mechanisms to address regulatory compliance issues.

*We have succeeded if:* Compliance-related best practices and lessons-learned continue to be added to the existing databases, and are effectively communicated to Program and field staff.

**Action 5b:** EH, in cooperation with the NNSA ES&H Advisor, will serve as a focal point for the sharing of best practices and lessons learned between DOE/NNSA and other federal agencies.

- ✓ EH will convey best practices and lessons learned through the Department's implementation of the PMC recommendations to other federal agencies via the Interagency Environmental Leadership Workgroup (established under E.O. 13148).
- ✓ EH will share best practices and lessons learned from other agencies with DOE Program Offices and NNSA in a timely manner.

*We have succeeded if:* Open communication among Federal agencies about best practices and lessons learned regarding environmental compliance becomes more common.

**PMC Recommendations Addressed:**

- Review environmental compliance management status, successes and failures to inform [DOE/NNSA] management decision-making and implement corrective actions towards environmental compliance management improvement. (Recommendation D-12)
- Collect facility level information regarding environmental program management status, successes and failures to inform management decisions. (Recommendation P-18)

## Acronym List

CEQ	Council on Environmental Quality
CRD	Contractor Requirements Document (part of a DOE Order)
CSO	Cognizant Secretarial Officer
DOD	Department of Defense
DOE	Department of Energy
DOE M	Department of Energy Manual (part of the DOE Directives System)
DOE O	Department of Energy Order (part of the DOE Directives System)
DOE P	Department of Energy Policy (part of the DOE Directives System)
EH	DOE's Office of Environment, Safety and Health
EMS	Environmental Management System
EPA	Environmental Protection Agency
ES&H	Environment, Safety and Health
ISMS	Integrated Safety Management System (DOE's umbrella management system framework for environment, safety, and health; established by DOE P 450.4)
ME	DOE's Office of Management, Budget and Administration
NNSA	National Nuclear Security Administration (Established by Congress in 2000, NNSA is a semi-autonomous agency within the U.S. Department of Energy responsible for maintaining and enhancing the safety, security, reliability and performance of the U.S. nuclear weapons stockpile without nuclear testing; working to reduce global danger from weapons of mass destruction; providing the U.S. Navy with safe and effective nuclear propulsion; and responding to nuclear and radiological emergencies in the U.S. and abroad.)
ODS	Ozone-Depleting Substances
OMB	Office of Management and Budget
OPM	Office of Personnel Management
P2E2	Pollution Prevention and Energy Efficiency
PMC	President's Management Council
PSO	Program Secretarial Officer
ROI	Return-on-Investment

# Attachment

**Department of Energy Implementation Plan**  
*in response to the*  
**Environmental Compliance Management Improvement Initiative**  
*of the President's Management Council*

## **Existing DOE Policies and Actions Responsive to PMC Recommendations**

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This 'crosswalk' listing, while extensive, is not intended to be all-encompassing or exhaustive.

Unless otherwise noted, Departmental ES&H Policy Guidance and Orders apply to the activities of all elements of the Department, including the NNSA.

# Department-Level Recommendations

## **Recommendation D-1 Affirm Administration policy regarding commitment to environmental compliance and enhanced program performance.**

The Department of Energy (DOE), including the National Nuclear Security Administration (NNSA), demonstrates commitment to environmental compliance and enhanced program performance, as evidenced below:

- [DOE P 450.7](#) (August 2004) “reaffirms the Secretary’s commitment to implement and evaluate the effectiveness of Integrated Safety Management (ISM) and Environmental Management Systems (EMS),” ensuring that “respect for the environment and protection of public health and safety are paramount in all that we do.” “The DOE’s ultimate ES&H goal is zero accidents, work-related injuries and illnesses, regulatory enforcement actions, and reportable environmental releases.”
- DOE and NNSA policy “reaffirms the commitments ... to excellence and continuous improvement in all Departmental operations.” An appropriate set of environment, safety and health (ES&H) requirements is to be identified “to ensure adequate protection. This set includes all applicable statutory and regulatory requirements ....” ([DOE P 450.2A](#), p. 1)
- Federal line managers are responsible for overseeing contractor performance. A key element of the line management ES&H oversight process is a “robust, rigorous, and credible contractor ES&H self-assessment program linked to the DOE Safety Management System ..., which includes elements that address ... Compliance with applicable requirements (Rules, regulatory standards, contract terms) ....” ([DOE P 450.5](#), p. 2)
- “The Department [including NNSA] is committed to working with its contractors to achieve compliance with requirements. If cooperative efforts do not result in contractor performance that satisfies ES&H requirements, the Department will not hesitate to seek compliance through the use of statutory, regulatory, and contractual enforcement tools.” ([DOE P 450.2A](#), p. 4)
- DOE, including NNSA, is committed to “implement sound stewardship practices that are protective of the air, water, land, and other natural and cultural resources impacted by” DOE/NNSA operations and to meet or exceed compliance with applicable environmental and resource protection laws, regulations, and DOE requirements in a cost-effective manner. ([DOE O 450.1](#), § 1)
- “All DOE elements must ensure that site ISMSs include an EMS that ...Provides for...compliance with applicable environmental protection requirements.” ([DOE O 450.1](#), § 4a (1c))
- “All Headquarters and field line managers are responsible for assuring their respective activities comply with environmental requirements. Activities included in this area are

those that affect the quality of air, water, soil, including self assessments performed to assure effectiveness, regardless of where funded. The following activities are included.

- a. Assuring compliance with Federal, State, and local environmental protection statutes and related Departmental Orders and regulations.
  - b. Implementing independent environmental audit systems and quality assurance programs.
  - c. Analyzing hazards to assess associated risks and the adequacy of risk limiting mechanisms.
  - d. Investigating environmental incidents to determine contributing factors and provide feedback to correct identified problems.
  - e. Collecting, evaluating, and disseminating information on DOE's performance regarding environmental projects.
  - f. Anticipating and detecting emergencies and maintaining emergency response. (DOE O 413.1A, Attachment 3, § 1)
- DOE operating contractors are required, through a contract clause, to “comply with the requirements of applicable Federal, State, and local laws and regulations (including DOE regulations), unless relief has been granted in writing by the appropriate regulatory agency.” ([48 CFR 970.5204-2](#), § a) “The contractor is responsible for flowing down the requirements of this clause to subcontracts at any tier to the extent necessary to ensure the contractor's compliance with the requirements.” ([48 CFR 970.5204-2](#), § e)

**Recommendation D-2 Ensure alignment and integration of Administration environmental policy with [DOE/NNSA] strategic plans and policies within the context of [DOE/NNSA] mission.**

DOE, including NNSA, demonstrates commitment to ensuring alignment and integration of Administration environmental policy with DOE strategic plans and policies within the context of the DOE and NNSA mission, as evidenced below:

- The Department aims to “protect the environment by providing a responsible resolution to the environmental legacy of the Cold War” through “acceleration of cleanup of nuclear weapons manufacturing and testing sites, completing cleanup of 108 contaminated sites by 2025” and the development of “a permanent repository for nuclear waste at Yucca Mountain and begin acceptance of waste by 2010.” ([Strategic Plan](#), Environment Strategic Goal)
- “It is DOE [including NNSA] policy that the safety of our workers, respect for the environment, and protection of public health and safety are paramount in all that we do.” ([DOE P 450.7](#), ¶ 3)
- The Assistant Secretary for Environment, Safety and Health is required to “Develop or revise, as needed, existing DOE environmental protection directives, policies, guidance, requirements, and procedures to ... provide guidance ... for ensuring site [Integrated Safety Management Systems] provide for EMSs that promote the protection of the environment, efficient compliance with environmental requirements, and enhanced environmental performance in the conduct of DOE operations.” ([DOE O 450.1](#), § 5a(1))



- The Office of Independent Oversight and Performance Assurance is required to “evaluate the effectiveness of DOE [including NNSA] Headquarters and field organization implementation of requirements of” DOE O 450.1. ([DOE O 450.1](#), § 5e)
- The Director of Management, Budget and Evaluation is required to “Ensure procurement policies and procedures encourage the Department’s acquisition of recycled-content materials and environmentally preferable products and services” and “Incorporate DOE’s P2E2 [Pollution Prevention/Energy Efficiency] goals into the Department’s strategic and annual performance plans required by the Government Performance and Results Act of 1993.” ([DOE O 450.1](#), § 5f(4 and 5))
- The NNSA Strategic Plan includes an Environmental Projects and Operations Program Goal to: “Accelerate risk reduction and cleanup of the environmental legacy at NNSA sites in accordance with applicable environmental laws and regulations, and in consultation with affected stakeholders and tribal governments,” as well as means and strategies: “NNSA, working in concert with other Federal agencies, states and affected citizens, will execute its cleanup and waste disposition projects in a cost-effective, compliant and safe manner consistent with end states that support the nuclear weapons complex mission.” (NNSA Strategic Plan, Nov 2004, p. 35)

**Recommendation D-3 Ensure that [DOE/NNSA] budgeting systems identify environmental program requirements and that [DOE/NNSA] accounting systems properly identify and dedicate environmental management funding.**

DOE, including NNSA, demonstrates commitment to ensuring that its budgeting systems identify environmental program requirements and that its accounting systems properly identify and dedicate environmental management funding, as evidenced below:

- A Guiding Principle for Integrated Safety Management [encompassing environment, safety and health] is that “Line management is directly responsible for the protection of the public, the workers, and the environment.” ([DOE P 450.4](#), p. 2) Funding for environment, safety and health is considered part of the cost of conducting work, and is not provided through a separate budget.
- A Guiding Principle for Integrated Safety Management [encompassing environment, safety and health] is “Balanced Priorities”: “Resources shall be effectively allocated to address [environment, safety and health], programmatic, and operational considerations. Protecting the public, the workers, and the environment shall be a priority whenever activities are planned and performed.” ([DOE P 450.4](#), Page 2)
- Program Secretarial Officers (PSO’s), the NNSA Administrator, and Administrators for the Power Administrations are required to “Request through the annual Departmental budgetary process, the funding and resources needed for implementing the requirements of this Order and funding to address findings and recommendations from oversight and self-assessment activities conducted in accordance with DOE P 450.5.” ([DOE O 450.1](#), § 5c (2))
- DOE, including NNSA, Operations/Field/Site Office Managers in coordination with reporting sites and PSO’s are required to “Ensure site annual budgetary processes

include the funding and resources needed to implement this Order, including [pollution prevention] program implementation and monitoring.” ([DOE O 450.1](#), § 5d (7))

- The Director of Management, Budget and Evaluation, in coordination with other DOE elements (including NNSA), is required to develop or revise existing DOE directives, policies, and documents to “Ensure that requests for funding to implement the requirements of this Order, made by PSOs are considered in the formulation of DOE’s annual budget request.” ([DOE O 450.1](#), § 5f (6))
- Through a clause in their contracts, DOE (including NNSA) each contractor is required on “an annual basis...[to] review and update ... its safety performance objectives, performance measures, and commitments consistent with and in response to DOE’s program and budget execution guidance and direction. Resources shall be identified and allocated to meet the safety objectives and performance commitments as well as maintain the integrity of the entire System. Accordingly, the System shall be integrated with the contractor’s business processes for ... budgeting....” ([48 CFR 970.5223-1](#), § e)

**Recommendation D-4 Provide budget/program-planning guidance to improve environmental compliance management programs (at [DOE/NNSA Program Element] level where appropriate).**

DOE, including NNSA, demonstrates commitment to providing budget/program-planning guidance to improve environmental compliance management programs, as evidenced below:

- A Guiding Principle for Integrated Safety Management [encompassing environment, safety and health] is that “Line management is directly responsible for the protection of the public, the workers, and the environment.” ([DOE P 450.4](#), p. 2) Funding for environment, safety and health is considered part of the cost of conducting work, and is not provided through a separate budget.
- A Guiding Principle for Integrated Safety Management [encompassing environment, safety and health] is “Balanced Priorities”: “Resources shall be effectively allocated to address [environment, safety and health], programmatic, and operational considerations. Protecting the public, the workers, and the environment shall be a priority whenever activities are planned and performed.” ([DOE P 450.4](#), Page 2)
- Program Secretarial Officers, the NNSA Administrator, and Administrators for the Power Administrations are required to “Request through the annual Departmental budgetary process, the funding and resources needed for implementing the requirements of this Order and funding to address findings and recommendations from oversight and self-assessment activities conducted in accordance with DOE P 450.5.” ([DOE O 450.1](#), § 5c (2))
- DOE and NNSA Operations/Field/Site Office Managers are required to “Ensure site annual budgetary processes include the funding and resources needed to implement this Order, including P2 program implementation and monitoring.” ([DOE O 450.1](#), § 5d (7))

- The Director of Management, Budget and Evaluation, in coordination with other DOE elements (including NNSA) is required to develop or revise existing DOE directives, policies, and documents to “ensure that requests for funding to implement the requirements of this Order, made by PSOs are considered in the formulation of DOE’s annual budget request.” ([DOE O 450.1](#), § 5f (6))

**Recommendation D-5 Provide guidance metrics for environmental program performance, including compliance management and other information necessary to respond to Administration level metrics.**

DOE, including NNSA, demonstrates commitment to providing guidance metrics for environmental program performance, including compliance management and other information necessary to respond to Administration level metrics, as evidenced below:

- [DOE P 450.7](#) (August 2004) “reaffirms the Secretary’s commitment to implement and evaluate the effectiveness of Integrated Safety Management (ISM) and Environmental Management Systems (EMS),” ensuring that “respect for the environment and protection of public health and safety are paramount in all that we do.”
- “The DOE’s ultimate ES&H goal is zero accidents, work-related injuries and illnesses, regulatory enforcement actions, and reportable environmental releases. This goal is to be pursued through a systematic and concerted process of continuous performance improvements using performance measurement. ... [I]t is DOE policy that ES&H goals be established that drive performance excellence. ... In achieving these goals, we will use appropriate performance measures, will accurately report ES&H incidents, and will assess site and corporate ES&H performance. ... A rigorous assessment program shall be established that provides sufficient data to determine within desired confidence levels that program goals for ES&H are being achieved, that corrective actions and opportunities for improvement are being identified and implemented.” ([DOE P 450.7](#), ¶ 4, 5, 9)
- Line managers are required to fulfill their responsibilities in part through the implementation and oversight of contractor self-assessment programs that develop and maintain a high level of ES&H performance. ([DOE P 450.5](#), pp. 2 and 3)
- DOE, including NNSA, requires site ISMSs to include EMSs that provide for “the systematic planning, integrated execution, and evaluation of programs for ... compliance with applicable environmental protection requirements.” ([DOE O 450.1](#), § 4a (1c))
- The Assistant Secretary for Environment, Safety and Health, in coordination with other DOE elements (including NNSA), is required to “Develop or revise, as needed, existing DOE environmental protection directives, policies, guidance [which include instruction for integration of EMS self-assessment requirements into ISMS self-assessment protocols], requirements, and procedures to ... provide guidance...for ensuring site ISMSs provide for EMSs that promote the protection of the environment, efficient compliance with environmental requirements, and enhanced environmental performance in the conduct of DOE [including NNSA] operations....” ([DOE O 450.1](#), § 5a (1))

- The Office of Independent Oversight and Performance Assurance is required to “evaluate the effectiveness of DOE [including NNSA] Headquarters and field organization implementation of the requirements of” DOE O 450.1. ([DOE O 450.1](#), § 5e)

**Recommendation D-6 Utilize environmental compliance management performance information to inform management and funding decision-making processes and improve environmental compliance management and environmental performance.**

DOE, including NNSA, demonstrates commitment to utilizing environmental compliance management performance information to inform management and funding decision-making processes and improve environmental compliance management and environmental performance, as evidenced below:

- The Assistant Secretary for Environment, Safety and Health, in coordination with other DOE elements (including NNSA) is required to “Develop or revise, as needed, existing DOE environmental protection directives, policies, guidance [which include instruction for integration of EMS self-assessment requirements into ISMS self-assessment protocols], requirements, and procedures to ... provide guidance...for ensuring site ISMSs provide for EMSs that promote the protection of the environment, efficient compliance with environmental requirements, and enhanced environmental performance in the conduct of DOE [including NNSA] operations....” ([DOE O 450.1](#), § 5a (1))
- The Office of Independent Oversight and Performance Assurance is required to “evaluate the effectiveness of DOE [including NNSA] Headquarters and field organization implementation of the requirements of” DOE O 450.1. ([DOE O 450.1](#), § 5e)
- Line managers are required to fulfill their responsibilities in part through the implementation and oversight of contractor self-assessment programs that develop and maintain a high level of ES&H performance. ([DOE P 450.5](#), pp. 2 and 3)
- DOE’s Under Secretary for Energy, Science and Environment conducts quarterly ES&H review meetings with the Program Secretarial Officers who report to him. At these meetings, the Program officials describe the environment, safety and health performance of their programs.
- Within the NNSA, a quarterly review of nuclear safety ES&H matters is held on a quarterly basis by the Deputy Administrator for Defense Programs who has authority for all nuclear safety and ES&H matters and is the Lead Program Secretarial Officer for all eight NNSA Nuclear Weapons Complex sites. Following his quarterly review with the individual Site Managers the Deputy Administrator for Defense Programs provides a nuclear safety ES&H progress and status report for the Nuclear Weapons Complex to the Administrator and Principal Deputy Administrator.
- In addition, the NNSA’s Environment, Safety and Health Advisor independently monitors the implementation and execution of NEPA, nuclear safety, ES&H and quality assurance related polices as well as Price Anderson Amendments Act Enforcement Actions across the Nuclear Weapons Complex and discusses the status and progress in these areas with the Administrator and Principal Deputy Administrator on a monthly basis.

(See also Policies cited under response to Recommendation D-5.)

**Recommendation D-7 Align budget and funding procedures to recognize and respond to identified programmatic needs for support of environmental compliance management and enhanced program performance.**

DOE, including NNSA, demonstrates commitment to aligning budget and funding procedures to recognize and respond to identified programmatic needs for support of environmental compliance management and enhanced program performance, as evidenced below:

- A Guiding Principle for Integrated Safety Management [encompassing environment, safety and health] is “Balanced Priorities”: “Resources shall be effectively allocated to address [environment, safety and health], programmatic, and operational considerations. Protecting the public, the workers, and the environment shall be a priority whenever activities are planned and performed.” ([DOE P 450.4](#), Page 2)
- Program Secretarial Officers, the NNSA Administrator, and Administrators for the Power Administrations must “Request through the annual Departmental budgetary process, the funding and resources needed for implementing the requirements of this Order and funding to address findings and recommendations from oversight and self assessment activities conducted in accordance with DOE P 450.5.” ([DOE O 450.1](#), § 5c (2))
- DOE, including NNSA, Operations/Field/Site Office Managers must “Ensure site annual budgetary processes include the funding and resources needed to implement this Order, including P2 program implementation and monitoring.” ([DOE O 450.1](#), § 5d (7))
- The Director of Management, Budget and Evaluation must “Ensure that requests for funding to implement the requirements of this Order, made by PSOs are considered in the formulation of DOE’s annual budget request.” ([DOE O 450.1](#), § 5f (6))

**Recommendation D-8 Train financial/budget staff to effectively recognize and address environmental management elements in budget considerations and requests.**

DOE, including NNSA, demonstrates commitment to training financial/budget staff to effectively recognize and address environmental management elements in budget consideration and requests. DOE and NNSA must incorporate training as part of EMSs and training on environmental requirements, as evidenced below:

- All DOE and NNSA elements must ensure that site ISMSs include an EMS that “Includes policies, procedures, and training to identify activities with significant environmental impacts, to manage, control, and mitigate the impacts of these activities, and to assess performance and implement corrective actions where needed.” ([DOE O 450.1](#), § 4a (2))
- The Director of Management, Budget and Evaluation, in coordination with other DOE elements (including NNSA) must develop or revise existing DOE and NNSA directives, policies, and documents to “Include, as appropriate, training on environmental requirements and EMSs in the standard senior-level management training for program

managers, contracting personnel, procurement and acquisition personnel, facility managers, and other personnel.” ([DOE O 450.1](#), § 5f (1))

**Recommendation D-9 Ensure adequate resources are planned and allocated across [DOE/NNSA] to foster improved environmental compliance management and program performance.**

DOE, including NNSA, demonstrates commitment to ensuring that adequate resources are planned and allocated across DOE to foster improved environmental compliance management and program performance. DOE and NNSA are required to request the needed resources and allocate resources to achieve environmental compliance, as evidenced below:

- A Guiding Principle for Integrated Safety Management [encompassing environment, safety and health] is “Balanced Priorities”: “Resources shall be effectively allocated to address [environment, safety and health], programmatic, and operational considerations. Protecting the public, the workers, and the environment shall be a priority whenever activities are planned and performed.” ([DOE P 450.4](#), Page 2)
- Program Secretarial Officers, the NNSA Administrator, and Administrators for the Power Administrations must “Request through the annual Departmental budgetary process, the funding and resources needed for implementing the requirements of this Order and funding to address findings and recommendations from oversight and self-assessment activities conducted in accordance with DOE P 450.5.” ([DOE O 450.1](#), § 5c (2))
- DOE/NNSA, Operations/Field/Site Office Managers must “Ensure site annual budgetary processes include the funding and resources needed to implement this Order, including P2 program implementation and monitoring.” ([DOE O 450.1](#), § 5d (7))
- The Director of Management, Budget and Evaluation, in coordination with other DOE elements (including NNSA), must develop or revise existing DOE and NNSA directives, policies, and documents to “Ensure that requests for funding to implement the requirements of this Order, made by PSOs are considered in the formulation of DOE’s annual budget request.” ([DOE O 450.1](#), § 5f (6))

**Recommendation D-10 Align/incorporate environmental compliance management factors into accountability elements and roles and responsibilities for senior and mid-level management personnel to ensure awareness of and support for implementation of environmental program management goals.**

DOE, including NNSA, demonstrates commitment to aligning/incorporating environmental compliance management factors into accountability elements and roles and responsibilities for senior and mid-level management personnel to ensure awareness of and support for implementation of environmental program management goals, as evidenced below. DOE/NNSA staff must meet accountability requirements in specific roles. Roles must be unambiguous in regard to supporting environmental program management goals.

- A Guiding Principle for Integrated Safety Management (encompassing environment, safety and health) is “Clear Roles and Responsibilities”: “Clear and unambiguous lines

of authority and responsibility for ensuring [environment, safety and health] shall be established and maintained at all organizational levels within the Department and its contractors.” ([DOE P 450.4](#), p. 2)

- The *Safety Management Functions, Responsibilities, and Authorities Manual* defines environment, safety and health management functions, responsibilities, and authorities for DOE and NNSA senior management with responsibilities for line, support, oversight, and enforcement actions. (DOE M 411.1-1C) In turn, DOE and NNSA elements have their own Functions Responsibilities and Authorities documents. There is a formal process for delegating authority where it is necessary for the responsibility and authority to be closer to the work.
- “We must expect and demand from ourselves as both Federal employees and contractors the highest levels of ES&H performance. To meet our strategic goals in national security, energy security, environmental cleanup, and science leadership, we must integrate ES&H into our work. This policy reaffirms the Secretary’s commitment to implement and evaluate the effectiveness of Integrated Safety Management (ISM) and Environmental Management Systems (EMS).” ([DOE P 450.7](#), ¶ 3)
- The Director of Management, Budget and Evaluation, in coordination with other DOE elements (including NNSA) must develop or revise existing DOE and NNSA directives, policies, and documents to “Include, as appropriate, the successful implementation of EMSs in the position descriptions and performance evaluations for Senior Executive Service and career Headquarters managers and operations/field/site office managers.” ([DOE O 450.1](#), § 5f (2))

**Recommendation D-11 Include environmental program performance metrics in existing management information collection processes to identify, collect, and report to Administration level on [DOE/NNSA] performance relative to programmatic and compliance goals and strategic plans.**

DOE, including NNSA, demonstrates commitment to including environmental program performance metrics in existing management information collection processes to identify, collect, and report to Administration level on DOE performance relative to programmatic and compliance goals and strategic plans, as evidenced below:

- DOE, including NNSA, “will use appropriate performance measures, will accurately report ES&H incidents, and will assess site and corporate ES&H performance” to achieve its “zero tolerance” goal. ([DOE P 450.7](#), p. 1)
- A key element of the line management ES&H oversight process is a “robust, rigorous, and credible contractor ES&H self-assessment program linked to the DOE Safety Management System [encompassing environment, safety, and health]..., which includes elements that address:
  - a. “Performance measures and performance indicators
  - b. Line and independent evaluations ...
  - d. Data collection, analysis, and corrective actions
  - e. Continuous feedback and performance improvement”.(DOE P 450.5, p. 2)

- The Department has implemented an occurrence reporting program to ensure appropriate and timely identification, categorization, response, notification, investigation, reporting, and analysis of abnormal conditions and events affecting health, safety, or the environment. All but the least significant events require analysis of root causes, implementation of corrective action, and identification of lessons learned. (DOE O 231.1A; DOE M 231.1-2)
- The Assistant Secretary for Environment, Safety and Health is responsible for the “preparation of annual corporate reports on the Department’s progress in implementing Executive Order 13101 and Executive Order 13148, “Greening the Government Through Leadership in Environmental Management” based on input from Departmental elements.” ([DOE O 450.1](#), § 5a (2)(b))
- The “Office of Independent Oversight and Performance Assurance must evaluate the effectiveness of DOE [including NNSA] Headquarters and field organization implementation of the requirements of this Order.” ([DOE O 450.1](#), § 5e)
- To measure performance against its goals, the Department annually assesses its performance in achieving its pollution prevention goals, toxic chemical releases and purchases of products containing recycled contents and other environmentally preferable products. Pollution prevention and procurement and recycling data are reported by the Operations Offices and individual field sites via a Web-based pollution prevention tracking and reporting system. The Office of Environment prepares two annual reports that are sent to the Offices of the Federal Environmental Executive and the Office of Management and Budget. (DOE’s [Federal Agency Environmental Program Survey Response](#), § 3.2)
- DOE’s Under Secretary for Energy, Science and Environment conducts quarterly ES&H review meetings with the Program Secretarial officers who report to him. At these meetings, the Program officials describe the environment, safety and health performance of their programs.
- Within the NNSA, a quarterly review of nuclear safety ES&H matters is held on a quarterly basis by the Deputy Administrator for Defense Programs who has authority for all nuclear safety and ES&H matters and is the Lead Program Secretarial Officer for all eight NNSA Nuclear Weapons Complex sites. Following his quarterly review with the individual Site Managers the Deputy Administrator for Defense Programs provides a nuclear safety ES&H progress and status report for the Nuclear Weapons Complex to the Administrator and Principal Deputy Administrator.
- In addition, the NNSA’s Environment, Safety and Health Advisor independently monitors the implementation and execution of NEPA, nuclear safety, ES&H and quality assurance related polices as well as Price Anderson Amendments Act Enforcement Actions across the Nuclear Weapons Complex and discusses the status and progress in these areas with the Administrator and Principal Deputy Administrator on a monthly basis.

**Recommendation D-12 Review environmental compliance management status, successes and failures to inform [DOE/NNSA] management decision-making and**



## **implement corrective actions towards environmental compliance management improvement.**

DOE, including NNSA, demonstrates commitment to reviewing environmental compliance management status, successes and failures to inform DOE management decision-making and implement corrective actions towards environmental compliance management improvement, as evidenced below:

- DOE, including NNSA, organizations are required to “ensure timely collection, reporting, analysis, and dissemination of information on environment, safety, and health issues as required by law or regulations or as needed to ensure that the Department of Energy (DOE) and National Nuclear Security Administration (NNSA) are kept fully informed on a timely basis about events that could adversely affect the health and safety of the public or the workers, the environment, the intended purpose of DOE/[NNSA] facilities, or the credibility of the Department.” ([DOE O 231.1A](#), § 1)
- The “Office of Independent Oversight and Performance Assurance must evaluate the effectiveness of DOE [and NNSA] Headquarters and field organization implementation of the requirements of this Order.” ([DOE O 450.1](#), § 5e)
- DOE, including NNSA, “Headquarters line functions of ES&H oversight are:
  - a. Monitor field element and contractor performance through the review of information provided by field elements, contractors, EH, and external organizations ...
  - b. When appropriate, participate in field element appraisals, assessments, surveillances, and walkthroughs of contractor facilities and activities.
  - c. Conduct onsite reviews of field element performance, including verification of their appraisals of the contractor, as necessary.
  - d. For cause reviews, as necessary.” ([DOE P 450.5](#), pp. 3-4)
- DOE, including NNSA, will: “Examine and demonstrate how these goals are being achieved through DOE/[NNSA] self-assessments. A rigorous assessment program shall be established that provides sufficient data to determine within desired confidence levels that program goals for ES&H are being achieved, that corrective actions and opportunities for improvement are being identified and implemented. The assessment part of an effective ES&H program serves to provide reasonable assurance that unknown factors do not exist in either the physical workplace or the management systems that govern work that can cause injury or loss. The assessments will provide a status of performance and corrective actions, if any.” ([DOE P 450.7](#), p. 2)
- The objective of ES&H reporting by DOE, including NNSA, is: “To ensure timely collection, reporting, analysis, and dissemination of information on environment, safety, and health issues as required by law or regulations or as needed to ensure that the Department of Energy (DOE) and National Nuclear Security Administration (NNSA) are kept fully informed on a timely basis about events that could adversely affect the health and safety of the public or the workers, the environment, the intended purpose of DOE facilities, or the credibility of the Department.” (DOE O 231.1A, § 1)

**Recommendation D-13 Evaluate environmental compliance management with regard to funding requested and funding received to identify the implications of funding disparities on environmental management programs. Evaluation should occur within the environmental function chain at the lowest practical functional level and inform [DOE/NNSA] management decision-making.**

DOE, including NNSA, demonstrates commitment to evaluating environmental compliance management with regard to funding requested and funding received to identify the implications of funding disparities on environmental management programs, as evidenced below. Reporting is required in order to identify events (these could include funding disparities which may affect environmental compliance). Funding shall be requested to address findings and recommendations from oversight and self assessment activities (oversight activities may include funding disparities).

- DOE, including NNSA, Organizations are required to “ensure timely collection, reporting, analysis, and dissemination of information on environment, safety, and health issues as required by law or regulations or as needed to ensure that the Department of Energy (DOE) and National Nuclear Security Administration (NNSA) are kept fully informed on a timely basis about events that could adversely affect the health and safety of the public or the workers, the environment, the intended purpose of DOE/[NNSA] facilities, or the credibility of the Department.” ([DOE O 231.1A](#), § 1)
- DOE analyzes the information acquired pursuant to DOE O 231.1A *Environment, Safety and Health Reporting*, for generic implications and for opportunities to improve operations.
- Program Secretarial Officers, the NNSA Administrator, and Administrators for the Power Administrations are required to “Request through the annual Departmental budgetary process, the funding and resources needed for implementing the requirements of this Order and funding to address findings and recommendations from oversight and self assessment activities conducted in accordance with DOE P 450.5.” ([DOE O 450.1](#), § 5c (2))
- DOE, including NNSA, Operations/Field/Site Office Managers must “Ensure site annual budgetary processes include the funding and resources needed to implement this Order, including P2 program implementation and monitoring.” ([DOE O 450.1](#), § 5d (7))

# Program Element-Level Recommendations

These recommendations are included verbatim from the PMC Report of October 6, 2004, except that for DOE and NNSA the terms “Bureau,” “Service,” and “Sub-Agency” have been replaced by “DOE/NNSA Program Element”; within the recommendations this term is intended to encompass the Power Administrations.

## **Recommendation P-1 Affirm and forward [DOE/NNSA] environmental compliance management and performance enhancement goals and objectives to appropriate levels and functions within [DOE/NNSA Program Element] program.**

DOE, including NNSA, affirms and forwards environmental compliance management and performance enhancement goals and objectives to appropriate levels and functions within its program elements, as evidenced below. DOE and NNSA are required to establish an ES&H management system, Integrated Safety Management System (including an Environmental Management System) to achieve environmental compliance, as evidenced below:

- DOE, NNSA, and contractor personnel are expected to ensure that “respect for the environment and protection of public health and safety are paramount in all” Departmental activities as exhibited in the conduct of daily work activities and operational performance regarding regulatory enforcement actions and environmental releases. ([DOE P 450.7](#), ¶ 1 and 3)
- The ultimate ES&H goal of DOE, including NNSA, “is zero accidents, work-related injuries and illnesses, regulatory enforcement actions, and reportable environmental releases. This goal is to be pursued through a systematic and concerted process of continuous performance improvements using performance measurement. ... [I]t is DOE/[NNSA] policy that ES&H goals be established that drive performance excellence. ... In achieving these goals, we will use appropriate performance measures, will accurately report ES&H incidents, and will assess site and corporate ES&H performance. ... A rigorous assessment program shall be established that provides sufficient data to determine within desired confidence levels that program goals for ES&H are being achieved, that corrective actions and opportunities for improvement are being identified and implemented.” ([DOE P 450.7](#), ¶ 4, 5, 9)
- DOE and NNSA policy “reaffirms the commitments ... to excellence and continuous improvement in all Departmental operations.” An appropriate set of environment, safety and health (ES&H) requirements is to be identified “to ensure adequate protection. This set includes all applicable statutory and regulatory requirements....” ([DOE P 450.2A](#), p. 1)
- “The Department [including NNSA] is committed to working with its contractors to achieve compliance with requirements. If cooperative efforts do not result in contractor performance that satisfies ES&H requirements, the Department will not hesitate to seek

compliance through the use of statutory, regulatory, and contractual enforcement tools.” ([DOE P 450.2A](#), p. 4)

- A key element of the line ES&H oversight process is a “robust, rigorous, and credible contractor ES&H self-assessment program linked to the DOE Safety Management System” that addresses “Compliance with applicable requirements (Rules, regulatory standards, contract terms)....” ([DOE P 450.5](#), p. 2)
- DOE, including NNSA, is committed to “implement sound stewardship practices that are protective of the air, water, land, and other natural and cultural resources impacted by” Department operations and to meet or exceed compliance with applicable environmental, public health, and resource protection laws, regulations, and DOE/[NNSA] requirements in a cost effective manner. ([DOE O 450.1](#), § 1)
- DOE, including NNSA, requires site ISMSs to include EMSs that provide for “the systematic planning, integrated execution, and evaluation of programs for ... compliance with applicable environmental protection requirements.” ([DOE O 450.1](#), § 4a (1c))
- Contractors operating DOE/NNSA sites are required to “comply with the requirements of applicable Federal, State, and local laws and regulations (including DOE regulations), unless relief has been granted in writing by the appropriate regulatory agency.” ([48 CFR 970.5204-2](#), § a)
- The NNSA Strategic Plan includes an Environmental Projects and Operations Program Goal to: “Accelerate risk reduction and cleanup of the environmental legacy at NNSA sites in accordance with applicable environmental laws and regulations, and in consultation with affected stakeholders and tribal governments,” as well as means and strategies: “NNSA, working in concert with other Federal agencies, states and affected citizens, will execute its cleanup and waste disposition projects in a cost-effective, compliant and safe manner consistent with end states that support the nuclear weapons complex mission.” (NNSA Strategic Plan, Nov 2004, p. 35)

**Recommendation P-2 Ensure alignment of [DOE/NNSA Program Element] mission related operating plans and environmental programs with [DOE/NNSA] environmental compliance management and performance enhancement goals.**

DOE, including NNSA, demonstrates commitment to ensuring alignment of program element-level mission related operating plans and environmental programs with DOE/NNSA environmental compliance management and performance enhancement goals, as evidenced below:

- “Program Secretarial Officers, the Administrator for the National Nuclear Security Administration, Administrators for Power Administrations, and DOE Operations/Field/Site Office Managers must assess implementation of EMSs as a component of the implementation of DOE P 450.5 ....” ([DOE O 450.1](#), § 5b)
- PSOs, the NNSA Administrator, and Administrators for the Power Administrations must “Ensure that by December 31, 2005, all sites under their purview have implemented the management system requirements of this Order.” Sites under their purview must include

site-specific goals in their ISMS that contribute to the accomplishment of DOE P2E2 goals, develop and implement cost-effective P2 programs that use life-cycle assessment concepts and practices in determining program return-on-investment (ROI), and monitor progress toward meeting the P2 requirements of paragraph 4b(3) of this Order, and make such information available annually to the Office of Environment, Safety and Health. ([DOE O 450.1](#), § 5c)

- Director of Management, Budget and Evaluation, in coordination with other DOE elements (including NNSA), is required to develop or revise existing DOE directives, policies, and documents to ensure that proper training on environmental requirements and EMSs has been provided to appropriate personnel and implemented into their position descriptions with special emphasis on senior management on the executive, headquarters, and field site levels. ([DOE O 450.1](#), § 5f)
- The Director of Management, Budget and Evaluation, in coordination with other DOE elements (including NNSA) is required to "Ensure procurement policies and procedures encourage the Department's acquisition of recycled-content materials and environmentally preferable products and services," and "Incorporate DOE/[NNSA]'s P2E2 goals into the Department's strategic and annual performance plans required by the Government Performance and Results Act of 1993." ([DOE O 450.1](#), § 5f)

**Recommendation P-3 Integrate environmental compliance management and compliance requirements into [DOE/NNSA Program Element] mission operations by communicating compliance requirements to facilities in the context of facility-level operations and activities.**

DOE, including NNSA, demonstrates commitment to integrating environmental compliance management and compliance requirements into DOE/NNSA program element mission operations by communicating compliance requirements to facilities in the context of facility-level operations and activities, as evidenced below:

- "All DOE elements must ensure that site ISMSs include an EMS that ... Provides for ... compliance with applicable environmental protection requirements." ([DOE O 450.1](#), § 4)
- PSOs, the NNSA Administrator, and Administrators for the Power Administrations must "Ensure that by December 31, 2005, all sites under their purview have implemented the management system requirements of this Order." Sites under their purview must include site-specific goals in their ISMS that contribute to the accomplishment of DOE P2E2 goals, develop and implement cost-effective P2 programs that use life-cycle assessment concepts and practices in determining program return-on-investment (ROI), and monitor progress toward meeting the P2 requirements of paragraph 4b(3) of this Order, and make such information available annually to the Office of Environment, Safety and Health. ([DOE O 450.1](#), § 5c)
- DOE, including NNSA, Operations/Field/Site Office Managers are "Required to report by December 31, 2005, to the Cognizant Secretarial Officer the status regarding whether the EMS requirements of DOE O 450.1 have been integrated into ISMSs by site contractors." ([DOE O 450.1](#), § 5d)

- The Director of Management, Budget and Evaluation, in coordination with other DOE elements (including NNSA) is required to “develop or revise existing DOE directives, policies, and documents to “Include, as appropriate, training on environmental requirements and EMSs in the standard senior-level management training for program managers, contracting personnel, procurement and acquisition personnel, facility managers, and other personnel.” ([DOE O 450.1](#), § 5f)
- The Director of Management, Budget and Evaluation, in coordination with other DOE elements (including NNSA), is required to “Ensure procurement policies and procedures encourage the Department’s acquisition of recycled-content materials and environmentally preferable products and services” and “Incorporate DOE[NNSA]’s P2E2 [Pollution Prevention/Energy Efficiency] goals into the Department’s strategic and annual performance plans required by the Government Performance and Results Act of 1993.” ([DOE O 450.1](#), § 5f(4 and 5))

**Recommendation P-4 Ensure organizational structure allows environmental compliance program responsibilities to exist at appropriate levels within [DOE/NNSA Program Element] to convey appropriate commitment to compliance performance.**

DOE, including NNSA, demonstrates commitment to ensuring that organizational structure allows environmental compliance program responsibilities to exist at appropriate levels within the DOE/NNSA program elements to convey appropriate commitment to compliance performance, as evidenced below:

- The *Safety Management Functions, Responsibilities, and Authorities Manual* defines environment, safety and health management functions, responsibilities, and authorities for DOE and NNSA senior management with responsibilities for line, support, oversight, and enforcement actions. (DOE M 411.1-1C) In turn, DOE and NNSA elements have their own Functions Responsibilities and Authorities documents. There is a formal process for delegating authority where it is necessary for the responsibility and authority to be closer to the work.

**Recommendation P-5 Ensure programmatic mechanisms, including environmental management systems, are identified to allow facilities to achieve [DOE/NNSA] goals and objectives.**

DOE, including NNSA, demonstrates commitment to ensuring programmatic mechanisms, including environmental management systems, are identified to allow facilities to achieve DOE/NNSA goals and objectives, as evidenced below:

- “All DOE elements [including NNSA] must ensure that site ISMSs include an EMS that ... Provides for the systematic planning, integrated execution, and evaluation of programs for public health and environmental protection, ... pollution prevention (P2), and ... compliance with applicable environmental protection requirements.” ([DOE O 450.1](#), § 4)
- PSOs, the NNSA Administrator, and Administrators for the Power Administrations, are required to “Ensure that by December 31, 2005, all sites under their purview have

implemented the management system requirements of this Order.” ([DOE O 450.1](#), § 5c(1))

- The Director of Management, Budget and Evaluation, in coordination with other DOE elements (including NNSA), is required to develop or revise existing DOE directives, policies, and documents to “Include, as appropriate, the successful implementation of EMSs in the position descriptions and performance evaluations for Senior Executive Service and career Headquarters managers and operations/field/site office managers.” ([DOE O 450.1](#), § 5f (2))
- [DOE P 450.7](#) (August 2004) “reaffirms the Secretary’s commitment to implement and evaluate the effectiveness of Integrated Safety Management (ISM) and Environmental Management Systems (EMS),” ensuring that “respect for the environment and protection of public health and safety are paramount in all that we do.” “The DOE’s ultimate ES&H goal is zero accidents, work-related injuries and illnesses, regulatory enforcement actions, and reportable environmental releases.”

**Recommendation P-6 Ensure programmatic resources are provided to facilities that will lead to improved environmental compliance management and enhanced environmental program performance.**

DOE, including NNSA, demonstrates commitment to ensuring programmatic resources are provided to facilities that will lead to improved environmental compliance management and enhanced environmental program performance.

- See responses to recommendations P-5, D-7, and D-9.

**Recommendation P-7 Identify compliance requirements associated with facility level operations and functions.**

DOE, including NNSA, demonstrates commitment to identifying compliance requirements associated with facility level operations and functions, as evidenced below:

- “All DOE elements [including NNSA] must ensure that site ISMSs include an EMS that ... Provides for the systematic planning, integrated execution, and evaluation of programs for ... compliance with applicable environmental protection requirements.” ([DOE O 450.1](#), § 4a (1)(c))
- “All DOE elements [including NNSA] must ensure that site ISMSs include an EMS that ... Includes policies, procedures, and training to identify activities with significant environmental impacts, to manage, control, and mitigate the impacts of these activities, and to assess performance and implement corrective actions where needed.” ([DOE O 450.1](#), § 4a (2))
- As part of integrating EMSs into site ISMSs, DOE elements, including NNSA, must “Ensure the early identification of, and appropriate response to, potential adverse environmental impacts associated with DOE operations, including, as appropriate,

preoperational characterization and assessment, and effluent and surveillance monitoring.” ([DOE O 450.1](#), § 4b (4))

- DOE operating contractors are required, through a contract clause, to “comply with the requirements of applicable Federal, State, and local laws and regulations (including DOE regulations), unless relief has been granted in writing by the appropriate regulatory agency.” ([48 CFR 970.5204-2](#), § a) “The contractor is responsible for flowing down the requirements of this clause to subcontracts at any tier to the extent necessary to ensure the contractor’s compliance with the requirements.” ([48 CFR 970.5204-2](#), § e)

**Recommendation P-8 Ensure training processes are in place and provided at facility level to convey compliance requirements and procedures to improve compliance performance through effective environmental compliance management.**

DOE, including NNSA, demonstrates commitment to ensuring that training processes are in place and provided at facility level to convey compliance requirements and procedures to improve compliance performance through effective environmental compliance management, as evidenced below:

- All DOE elements, including NNSA, are required ensure that site ISMSs include an EMS that includes “training to identify activities with significant environmental impacts, to manage, control, and mitigate the impacts of these activities, and to assess performance and implement corrective actions where needed.” ([DOE O 450.1](#), § 4a (2))
- The Director of Management, Budget and Evaluation, in coordination with other DOE elements (including NNSA), is required to “develop or revise existing DOE directives, policies, and documents to ”Include, as appropriate, training on environmental requirements and EMSs in the standard senior-level management training for program managers, contracting personnel, procurement and acquisition personnel, facility managers, and other personnel.” ([DOE O 450.1](#), § 5f (1))

**Recommendation P-9 Align established budget procedures to recognize and support environmental compliance management.**

DOE, including NNSA, demonstrates commitment to aligning established budget procedures to recognize and support environmental compliance management, as evidenced below:

- PSOs, the NNSA Administrator, and Administrators for the Power Administrations are required to “Request through the annual Departmental budgetary process, the funding and resources needed for implementing the requirements of this Order and funding to address findings and recommendations from oversight and self-assessment activities conducted in accordance with DOE P 450.5.” ([DOE O 450.1](#), § 5c (2))

**Recommendation P-10 Train budget staff to effectively include environmental compliance management elements in budget planning and requests.**



DOE and NNSA demonstrate commitment to training budget staff to effectively include environmental compliance management elements in budget planning and requests, as evidenced below:

- PSOs, the NNSA Administrator, and Administrators for the Power Administrations are required to “Request through the annual Departmental budgetary process, the funding and resources needed for implementing the requirements of this Order and funding to address findings and recommendations from oversight and self-assessment activities conducted in accordance with DOE P 450.5.” ([DOE O 450.1](#), § 5c (2))
- The Director of Management, Budget and Evaluation, in coordination with other DOE elements (including NNSA), is required to “develop or revise existing DOE directives, policies, and documents to”Include, as appropriate, training on environmental requirements and EMSs in the standard senior-level management training for program managers, contracting personnel, procurement and acquisition personnel, facility managers, and other personnel.” ([DOE O 450.1](#), § 5f (1))

**Recommendation P-11 Identify opportunities for environmental compliance management performance improvement using information gathered from [DOE/NNSA Program Element] oversight as well as facility level checking and reporting procedures.**

DOE, including NNSA, demonstrates commitment to identifying opportunities for environmental compliance management performance improvement using information gathered from [DOE/NNSA Program Element] oversight as well as facility level checking and reporting procedures, as evidenced below. DOE Orders and Policies outline various modes of information gathering for environmental compliance management performance improvement purposes and how EMSs should include measurable environmental goals which are reviewed annually for improvement.

- “In achieving these goals, we will use appropriate performance measures, will accurately report ES&H incidents, and will assess site and corporate ES&H performance.” ([DOE P 450.7](#), ¶ 5)
- “To ensure timely collection, reporting, analysis, and dissemination of information on environment, safety, and health issues as required by law or regulations or as needed to ensure that the Department of Energy (DOE) and National Nuclear Security Administration (NNSA) are kept fully informed on a timely basis about events that could adversely affect the health and safety of the public or the workers, the environment, the intended purpose of DOE facilities, or the credibility of the Department.” ([DOE O 231.1A](#))
- “All DOE elements [including NNSA] must ensure that site ISMSs include an EMS that ... Includes policies, procedures, and training to identify activities with significant environmental impacts, to manage, control, and mitigate the impacts of these activities, and to assess performance and implement corrective actions where needed.” ([DOE O 450.1](#), § 4a (2))
- All EMSs should “include measurable environmental goals, objectives, and targets that are reviewed annually and updated when appropriate.” ([DOE O 450.1](#), § 4a (3))

- PSOs, the NNSA Administrator, and Administrators for the Power Administrations must “Request through the annual Departmental budgetary process, the funding and resources needed for implementing the requirements of this Order and funding to address findings and recommendations from oversight and self assessment activities conducted in accordance with DOE P 450.5.” ([DOE O 450.1](#), § 5c (2))
- PSOs, the NNSA Administrator, and Administrators for the Power Administrations must “Ensure sites under their purview develop and implement cost-effective P2 programs that use life-cycle assessment concepts and practices in determining program return-on-investment (ROI).” ([DOE O 450.1](#), § 5c (4))
- PSOs, the NNSA Administrator, and Administrators for the Power Administrations must “Evaluate on an annual basis P2 nominations from sites under their purview, select ‘best in class’ nominees, and transmit the nominating information to the Office of Environment, Safety and Health for submittal to the White House’s ‘Closing the Circle Awards’ program.” ([DOE O 450.1](#), § 5c (5))
- PSOs, the NNSA Administrator, and Administrators for the Power Administrations must “Ensure sites under their purview monitor progress toward meeting the P2 requirements of paragraph 4b(3) of this Order, and make such information available annually to the Office of Environment, Safety and Health.” ([DOE O 450.1](#), § 5c (6))

**Recommendation P-12 Develop and implement processes for corrective actions that remedy findings of environmental compliance management concerns and non-compliance.**

DOE, including NNSA, demonstrates commitment to developing and implementing processes for corrective actions that remedy findings of environmental compliance management concerns and non-compliance, as evidenced below:

- DOE, including NNSA, will: “Examine and demonstrate how these goals are being achieved through DOE/[NNSA] self-assessments. A rigorous assessment program shall be established that provides sufficient data to determine within desired confidence levels that program goals for ES&H are being achieved, that corrective actions and opportunities for improvement are being identified and implemented. The assessment part of an effective ES&H program serves to provide reasonable assurance that unknown factors do not exist in either the physical workplace or the management systems that govern work that can cause injury or loss. The assessments will provide a status of performance and corrective actions, if any.” ([DOE P 450.7](#), p. 2)
- DOE issued [Order 231.1A](#) “To ensure timely collection, reporting, analysis, and dissemination of information on environment, safety, and health issues as required by law or regulations or as needed to ensure that the Department of Energy (DOE) and National Nuclear Security Administration (NNSA) are kept fully informed on a timely basis about events that could adversely affect the health and safety of the public or the workers, the environment, the intended purpose of DOE/[NNSA] facilities, or the credibility of the Department.” DOE M 231-2 *Occurrence Reporting and Processing of Operations Information* provides detailed information for reporting occurrences and

managing associated activities -- such as root cause analysis and corrective actions -- at DOE facilities, including NNSA facilities.

- “As part of integrating EMSs into site ISMSs, DOE elements [including NNSA] must ... Ensure the early identification of, and appropriate response to, potential adverse environmental impacts associated with DOE/[NNSA] operations, including, as appropriate, preoperational characterization and assessment, and effluent and surveillance monitoring.” ([DOE O 450.1](#), § 4b (4))
- PSOs, the NNSA Administrator, and Administrators for the Power Administrations must “Request through the annual Departmental budgetary process, the funding and resources needed for implementing the requirements of this Order and funding to address findings and recommendations from oversight and self assessment activities conducted in accordance with DOE P 450.5.” ([DOE O 450.1](#), § 5c (2))

**Recommendation P-13 Develop funding requests for submission to [DOE/NNSA] level for environmental program improvements based on identified opportunities to improve environmental compliance management.**

DOE, including NNSA, demonstrates commitment to developing funding requests for submission to DOE/NNSA level for environmental program improvements based on identified opportunities to improve environmental compliance management, as evidenced below:

- PSOs, the NNSA Administrator, and Administrators for the Power Administrations must “Request through the annual Departmental budgetary process, the funding and resources needed for implementing the requirements of this Order and funding to address findings and recommendations from oversight and self assessment activities conducted in accordance with DOE P 450.5.” ([DOE O 450.1](#), § 5c (2))
- DOE Order 231.1A outlines the information collection procedure to identify opportunities for improvement with environmental compliance. Its stated objective is: “To ensure timely collection, reporting, analysis, and dissemination of information on environment, safety, and health issues as required by law or regulations or as needed to ensure that the Department of Energy (DOE) and National Nuclear Security Administration (NNSA) are kept fully informed on a timely basis about events that could adversely affect the health and safety of the public or the workers, the environment, the intended purpose of DOE/[NNSA] facilities, or the credibility of the Department.” ([DOE O 231.1A](#), p. 1)

**Recommendation P-14 Develop funding requests for submission to [DOE/NNSA] level for environmental program improvements based on identified facility-level compliance findings.**

See response to recommendation P-13.

**Recommendation P-15 Gather, compile, and review facility level environmental compliance management performance metrics for reporting to [DOE/NNSA] level.**

DOE, including NNSA, demonstrates commitment to gathering, compiling, and reviewing facility level environmental compliance management performance metrics for reporting to DOE/NNSA level, as evidenced below:

- DOE (including NNSA) states in a policy directive, “In achieving these goals, we will use appropriate performance measures, will accurately report ES&H incidents, and will assess site and corporate ES&H performance.” ([DOE P 450.7](#), p. 1)
- PSOs, the NNSA Administrator, and Administrators for the Power Administrations must “Evaluate on an annual basis P2 nominations from sites under their purview, select ‘best in class’ nominees, and transmit the nominating information to the Office of Environment, Safety and Health for submittal to the White House’s ‘Closing the Circle Awards’ program.” ([DOE O 450.1](#), § 5c (5))
- PSOs, the NNSA Administrator, and Administrators for the Power Administrations also must “Ensure sites under their purview monitor progress toward meeting the P2 requirements of paragraph 4b(3) of this Order, and make such information available annually to the Office of Environment, Safety and Health.” ([DOE O 450.1](#), § 5c (6))
- DOE, including NNSA, Operations/Field/Site Office Managers must “Report by December 31, 2005, to the Cognizant Secretarial Officer the status regarding whether the EMS requirements of DOE O 450.1 have been integrated into ISMSs by site contractors.” ([DOE O 450.1](#), § 5d (1))
- They also must “Monitor progress toward meeting the P2 requirements of paragraph 4b(3) of this Order, and make such information available annually to the Office of Environment, Safety and Health.” ([DOE O 450.1](#), § 5d (9))
- The “Office of Independent Oversight and Performance Assurance must evaluate the effectiveness of DOE [including NNSA] Headquarters and field organization implementation of the requirements of this Order.” ([DOE O 450.1](#), § 5e)

**Recommendation P-16 Align/incorporate environmental compliance management and environmental program enhancement factors in accountability elements and roles and responsibilities for senior and mid-level management to ensure support for environmental compliance management goals.**

See response to recommendation D-10.

**Recommendation P-17 Provide facilities with operational performance metrics necessary for the reporting to [DOE/NNSA] to evaluate [DOE/NNSA]-wide environmental compliance management performance.**

DOE, including NNSA, demonstrates commitment to providing facilities with operational performance metrics necessary for the reporting to DOE/NNSA to evaluate DOE/NNSA-wide environmental compliance management performance, as evidenced below:

- DOE, including NNSA, Operations/Field/Site Office Managers must “Report by December 31, 2005, to the Cognizant Secretarial Officer the status regarding whether the EMS requirements of DOE O 450.1 have been integrated into ISMSs by site contractors.” ([DOE O 450.1](#), § 5d (1))
- They also must “Monitor progress toward meeting the P2 requirements of paragraph 4b(3) of this Order, and make such information available annually to the Office of Environment, Safety and Health.” ([DOE O 450.1](#), § 5d (9))
- The “Office of Independent Oversight and Performance Assurance must evaluate the effectiveness of DOE [including NNSA] Headquarters and field organization implementation of the requirements of this Order.” ([DOE O 450.1](#), § 5e)
- It is DOE, including NNSA, policy that the Department’s and contractors’ line organizations share a principle of working “together to develop ES&H performance objectives, measures, and expectations, tied to Departmental strategic goals and objectives, as well as to performance goals and objectives of the Safety Management System elements. Mutual agreement is reached on expected ES&H performance.” ([DOE P 450.5](#), p. 2)
- The DOE, including NNSA, field element oversight function will transition to “Review of performance against formally established ES&H performance measures, other ES&H performance indicators, and using contractor self-assessments.” ([DOE P 450.5](#), p. 3)
- DOE, including NNSA, “will use appropriate performance measures, will accurately report ES&H incidents, and will assess site and corporate ES&H performance” to achieve its “zero tolerance” goal. ([DOE P 450.7](#), p. 1)

**Recommendation P-18 Collect facility level information regarding environmental program management status, successes and failures to inform management decisions.**

See response to recommendation P-17.

**Recommendation P-19 Develop and implement processes to periodically assess compliance of facilities within the [DOE/NNSA Program Element] and use that information for corrective action and improvement.**

DOE, including NNSA, demonstrates commitment to developing and implementing processes to periodically assess compliance of facilities within the [DOE/NNSA Program Element] and use that information for corrective action and improvement, as evidenced below:

- Federal line managers are responsible for oversight of contractor performance. A key element of ES&H oversight is that “A robust, rigorous, and credible contractor ES&H self-assessment program linked to the DOE Safety Management System is in place...” ([DOE P 450.5](#), p. 2)
- “As an effective contractor self-assessment program is established, the DOE [including NNSA] field element oversight function transitions to ... Review of performance against

formally established ES&H performance measures, other ES&H performance indicators, and using contractor self-assessments.” ([DOE P 450.5](#), p. 3)

- DOE, including NNSA, will: “Examine and demonstrate how these goals are being achieved through DOE/[NNSA] self-assessments. A rigorous assessment program shall be established that provides sufficient data to determine within desired confidence levels that program goals for ES&H are being achieved, that corrective actions and opportunities for improvement are being identified and implemented. The assessment part of an effective ES&H program serves to provide reasonable assurance that unknown factors do not exist in either the physical workplace or the management systems that govern work that can cause injury or loss. The assessments will provide a status of performance and corrective actions, if any.” ([DOE P 450.7](#), p. 2)
- “As part of integrating EMSs into site ISMSs, DOE elements [including NNSA] must ... Ensure the early identification of, and appropriate response to, potential adverse environmental impacts associated with DOE operations, including, as appropriate, preoperational characterization and assessment, and effluent and surveillance monitoring.” ([DOE O 450.1](#), § 4b(4))
- PSOs, the NNSA Administrator, and Administrators for the Power Administrations must “Request through the annual Departmental budgetary process, the funding and resources needed for implementing the requirements of this Order and funding to address findings and recommendations from oversight and self-assessment activities conducted in accordance with DOE P 450.5.” ([DOE O 450.1](#), § 5c(2))
- The “Office of Independent Oversight and Performance Assurance must evaluate the effectiveness of DOE [including NNSA] Headquarters and field organization implementation of the requirements of this Order.” ([DOE O 450.1](#), § 5e)

**Recommendation P-20 Monitor environmental compliance corrective action plans to ensure resources are available and are applied and adequately address identified compliance concerns.**

DOE, including NNSA, demonstrates commitment to monitoring environmental compliance corrective action plans to ensure resources are available and are applied and adequately address identified compliance concerns, as evidenced below:

- DOE, including NNSA, will: “Examine and demonstrate how these goals are being achieved through DOE self-assessments. A rigorous assessment program shall be established that provides sufficient data to determine within desired confidence levels that program goals for ES&H are being achieved, that corrective actions and opportunities for improvement are being identified and implemented. The assessment part of an effective ES&H program serves to provide reasonable assurance that unknown factors do not exist in either the physical workplace or the management systems that govern work that can cause injury or loss. The assessments will provide a status of performance and corrective actions, if any.” ([DOE P 450.7](#), p. 2)
- DOE Order 231.1A states as its objective: “To ensure timely collection, reporting, analysis, and dissemination of information on environment, safety, and health issues as

required by law or regulations or as needed to ensure that the Department of Energy (DOE) and National Nuclear Security Administration (NNSA) are kept fully informed on a timely basis about events that could adversely affect the health and safety of the public or the workers, the environment, the intended purpose of DOE[NNSA] facilities, or the credibility of the Department.” ([DOE Order 231.1A](#), p. 1)

- DOE, including NNSA, Operations/Field/Site Office Managers must “Conduct environmental monitoring, as appropriate, to support the site’s ISMS, to detect, characterize, and respond to releases from DOE activities; assess impacts; estimate dispersal patterns in the environment; characterize the pathways of exposure to members of the public; characterize the exposures and doses to individuals, to the population; and to evaluate the potential impacts to the biota in the vicinity of the DOE[NNSA] activity.” ([DOE O 450.1](#), § 5d (14))

**Recommendation P-21 Perform evaluations of the implications of resource shortfalls on meeting environmental management goals and objectives for the facilities under [DOE/NNSA Program Element] jurisdiction.**

DOE, including NNSA, demonstrates commitment to performing evaluations of the implications of resource shortfalls on meeting environmental management goals and objectives for the facilities under [DOE/NNSA Program Element] jurisdiction, as evidenced below:

- DOE Order 231.1A states as its objective: “To ensure timely collection, reporting, analysis, and dissemination of information on environment, safety, and health issues as required by law or regulations or as needed to ensure that the Department of Energy (DOE) and National Nuclear Security Administration (NNSA) are kept fully informed on a timely basis about events that could adversely affect the health and safety of the public or the workers, the environment, the intended purpose of DOE[NNSA] facilities, or the credibility of the Department.” ([DOE Order 231.1A](#))
- DOE, including NNSA, Operations/Field/Site Office Managers must “Ensure site annual budgetary processes include the funding and resources needed to implement this Order, including P2 program implementation and monitoring.” (DOE O 450.1, § 5d (7))

# Facility-Level Recommendations

The Department of Energy, including the National Nuclear Security Administration, generally refers to “sites,” which are contiguous areas composed of numerous individual facilities. Most major sites at DOE, including NNSA, are operated by contractors, under the oversight of a DOE site office. Each major site is implementing -- or has already implemented -- an EMS. The facility-level recommendations are addressed by these EMSs.

The following summary provides additional specific information responsive to each facility-level recommendation.

**Recommendation F-1 Include, in the site/facility level EMS, a commitment to environmental compliance and other policies, goals, and commitments established by [DOE/NNSA] and the [DOE/NNSA Program Element]. (For a site/facility without a formal EMS, affirm and communicate internally and externally [DOE/NNSA Program Element] environmental policies, goals and commitments.)**

DOE, including NNSA, demonstrates commitment to including in the site/facility level EMS, a commitment to environmental compliance and other policies, goals, and commitments established by DOE/NNSA and the program elements, as evidenced below:

- Sites are required to implement an EMS that provides for “sound stewardship practices that are protective of the air, water, land, and other natural and cultural resources impacted by” DOE/NNSA operations. ([DOE O 450.1](#), § 1)
- All major sites must ensure that site ISMSs include an EMS. The Department, including NNSA, expects that the EMS will address the systematic planning, integrated execution, and evaluation of programs for public health and environmental protection and pollution prevention. DOE’s actions in connection with these requirements will strengthen and enhance the site-level EMS. ([DOE O 450.1](#), § 4a (1a and 1b))
- The contractor is required to “comply with the requirements of applicable Federal, State and local laws and regulations (including DOE regulations), unless relief has been granted in writing by the appropriate regulatory agency.” ([48 CFR 970.5204-2](#), § a)
- The contractor is responsible for “compliance with the requirements of this clause” and “flowing down of this clause to subcontractors at any tier...to ensure compliance with the requirements.” ([48 CFR 970.5204-2](#), § e)
- [DOE P 450.7](#) (August 2004) reaffirms the commitment of the Secretary and the Administrator of NNSA “to implement and evaluate the effectiveness of Integrated Safety Management (ISM) and Environmental Management Systems (EMS),” ensuring that “respect for the environment and protection of public health and safety are paramount in all that we do.” The ultimate ES&H goal of DOE/NNSA “is zero accidents, work-related injuries and illnesses, regulatory enforcement actions, and reportable environmental releases.”



**Recommendation F-2 Ensure facility operations reflect environmental compliance management goals and requirements by integrating environmental compliance management requirements into operational instructions and procedures as guided by environmental compliance management program elements developed by [the DOE/NNSA Program Element].**

DOE, including NNSA, demonstrates commitment to ensuring facility operations reflect environmental compliance management goals and requirements by integrating environmental compliance management requirements into operational instructions and procedures as guided by environmental compliance management program elements developed by program elements, as evidenced below:

- All major facilities must ensure that site ISMSs include an EMS. The EMS will address the systematic planning, integrated execution, and evaluation of programs for public health and environmental protection and pollution prevention. The EMS should include policies, procedures, and training to identify activities with significant environmental impacts, to manage, control, and mitigate the impacts of these activities, and to assess performance and implement corrective actions where needed. DOE, including NNSA, actions in connection with these requirements will strengthen and enhance the site-level EMS. ([DOE O 450.1](#), § 4a (1 and 2))
- "As part of integrating EMSs into site ISMSs, DOE elements [including NNSA] must ... Consider the following for inclusion as applicable: (a) conformity of DOE proposed actions with State Implementation Plans to attain and maintain national ambient air quality standards, (b) implementation of a watershed approach for surface water protection, (c) implementation of a site-wide approach for groundwater protection, (d) protection of other natural resources including biota, (e) protection of site resources from wild land and operational fires, and (f) protection of cultural resources." ([DOE O 450.1](#), § 4b)
- "As part of integrating EMSs into site ISMSs, DOE elements [including NNSA] must ... promote the long-term stewardship of a site's natural and cultural resources throughout its operational, closure, and post-closure life cycle ... [and] Ensure the early identification of, and appropriate response to, potential adverse environmental impacts associated with DOE/[NNSA] operations..." ([DOE O 450.1](#), § 4b)
- [DOE P 450.7](#) (August 2004) reaffirms the commitment of the Secretary and the Administrator of NNSA "to implement and evaluate the effectiveness of Integrated Safety Management (ISM) and Environmental Management Systems (EMS)," ensuring that "respect for the environment and protection of public health and safety are paramount in all that we do." The ultimate ES&H goal of DOE/NNSA "is zero accidents, work-related injuries and illnesses, regulatory enforcement actions, and reportable environmental releases."

**Recommendation F-3 Identify opportunities for environmental compliance management performance improvement using compliance performance information gathered by [DOE/NNSA Program Element] assessments of the facility.**

DOE, including NNSA, demonstrates commitment to identifying opportunities for environmental compliance management performance improvement using compliance performance information gathered by the program elements' assessments of the facility, as evidenced below:

- The “Office of Independent Oversight and Performance Assurance must evaluate the effectiveness of DOE Headquarters [including NNSA] and field organization implementation of the requirements of this Order.” ([DOE O 450.1](#), §5e)
- The line ES&H oversight process includes “A robust, rigorous, and credible contractor ES&H self-assessment program linked to the DOE Safety Management System” that addresses “Performance measures and performance indicators ... Line and independent evaluations ... Compliance with applicable requirements (Rules, regulatory standards, contract terms) ... Data collection, analysis, and corrective actions ... [and] Continuous feedback and performance improvement.” ([DOE P 450.5](#), p. 2)
- The DOE, including NNSA, field element oversight function will consist of operational awareness of contractor work activities, typically through local line managers and staff such as facility representatives, subject matter experts, and other specialists, review of performance against formally established ES&H performance measures, other performance indicators, and using contractor self-assessments, a review and assessment in support of required readiness assessments, operational readiness reviews, Safety Management System documentation and onsite verification reviews, and authorization basis document reviews, a periodic, value-added appraisal of sufficient frequency and duration to confirm the contractor's safe performance of work and the effectiveness of the self-assessment program, and for-cause reviews, as necessary. ([DOE P 450.5](#), p. 3)
- [DOE P 450.7](#) (August 2004) reaffirms the commitment of the Secretary and the Administrator of NNSA “to implement and evaluate the effectiveness of Integrated Safety Management (ISM) and Environmental Management Systems (EMS),” ensuring that “respect for the environment and protection of public health and safety are paramount in all that we do.” The ultimate ES&H goal of DOE/NNSA “is zero accidents, work-related injuries and illnesses, regulatory enforcement actions, and reportable environmental releases.”

**Recommendation F-4 Align facility operations with environmental program enhancement policies, goals and commitments developed by [the DOE/NNSA Program Element].**

DOE, including NNSA, demonstrates commitment to aligning facility operations with environmental program enhancement policies, goals and commitments developed by the program elements, as evidenced below:

- Sites are required to implement an EMS that provides for “sound stewardship practices that are protective of the air, water, land, and other natural and cultural resources impacted by” DOE/NNSA operations. ([DOE O 450.1](#), § 1)
- [DOE P 450.7](#) (August 2004) reaffirms the commitment of the Secretary and the Administrator of NNSA “to implement and evaluate the effectiveness of Integrated Safety Management (ISM) and Environmental Management Systems (EMS),” ensuring that “respect for the environment and protection of public health and safety are paramount in

all that we do.” The ultimate ES&H goal of DOE/NNSA “is zero accidents, work-related injuries and illnesses, regulatory enforcement actions, and reportable environmental releases.”

**Recommendation F-5 Identify budget needs to support environmental compliance management through operational improvements and corrective actions.**

DOE, including NNSA, demonstrates commitment to identifying budget needs to support environmental compliance management through operational improvements and corrective actions, as evidenced below:

- A Guiding Principle for Integrated Safety Management [encompassing environment, safety and health] is “Balanced Priorities”: “Resources shall be effectively allocated to address [environment, safety and health], programmatic, and operational considerations. Protecting the public, the workers, and the environment shall be a priority whenever activities are planned and performed.” ([DOE P 450.4](#), Page 2)
- PSOs, the NNSA Administrator, and Administrators for the Power Administrations are required to “Request through the annual Departmental budgetary process, the funding and resources needed for implementing the requirements of this Order and funding to address findings and recommendations from oversight and self-assessment activities conducted in accordance with DOE P 450.5.” ([DOE O 450.1](#), § 5c)
- DOE, including NNSA, Operations/Field/Site Office Managers must “Ensure site annual budgetary processes include the funding and resources needed to implement this Order, including P2 program implementation and monitoring.” ([DOE O 450.1](#), § 5d (7))
- DOE, including NNSA, aims to “ensure timely collection, reporting, analysis, and dissemination of information on environment, safety, and health issues as required by law or regulations or as needed to ensure that the Department of Energy (DOE) and National Nuclear Security Administration (NNSA) are kept fully informed on a timely basis about events that could adversely affect the health and safety of the public or the workers, the environment, the intended purpose of DOE[NNSA] facilities, or the credibility of the Department.” ([DOE O 231.1A](#))

**Recommendation F-6 Ensure facility leadership includes environmental compliance management elements in budget requests.**

DOE, including NNSA, demonstrates commitment to ensuring facility leadership includes environmental compliance management elements in budget requests, as evidenced below:

- A Guiding Principle of Integrated Safety Management is that “Line management is directly responsible for the protection of the public, the workers, and the environment.” ([DOE P 450.4](#), p. 2)
- DOE, including NNSA, Operations/Field/Site Office Managers must “Ensure site annual budgetary processes include the funding and resources needed to implement this Order, including P2 program implementation and monitoring.” ([DOE O 450.1](#), § 5d (7))

See also response to recommendation F-5.

**Recommendation F-7 Ensure resources provided to all facilities for improved environmental compliance management and performance are dedicated to support environmental compliance management in operations.**

DOE, including NNSA, demonstrates commitment to ensuring resources provided to all facilities for improved environmental compliance management and performance are dedicated to support environmental compliance management in operations, as evidenced below:

- A Guiding Principle for Integrated Safety Management [encompassing environment, safety and health] is “Balanced Priorities”: “Resources shall be effectively allocated to address [environment, safety and health], programmatic, and operational considerations. Protecting the public, the workers, and the environment shall be a priority whenever activities are planned and performed.” ([DOE P 450.4](#), Page 2)
- DOE, including NNSA, Operations/Field/Site Office Managers, in coordination with their reporting sites and PSOs, must “Ensure site annual budgetary processes include the funding and resources needed to implement this Order, including P2 program implementation and monitoring.” ([DOE O 450.1](#), § 5d (7))

**Recommendation F-8 Develop and implement processes to address corrective actions in response to findings of environmental compliance management and performance concerns.**

DOE, including NNSA, demonstrates commitment to developing and implementing processes to address corrective actions in response to findings of environmental compliance management and performance concerns, as evidenced below.

- “To ensure timely collection, reporting, analysis, and dissemination of information on environment, safety, and health issues as required by law or regulations or as needed to ensure that the Department of Energy (DOE) and National Nuclear Security Administration (NNSA) are kept fully informed on a timely basis about events that could adversely affect the health and safety of the public or the workers, the environment, the intended purpose of DOE/[NNSA] facilities, or the credibility of the Department.” ([DOE O 231.1A](#))
- DOE elements, including NNSA, must “Ensure the early identification of, and appropriate response to, potential adverse environmental impacts associated with DOE/[NNSA] operations, including, as appropriate, preoperational characterization and assessment, and effluent and surveillance monitoring.” ([DOE O 450.1](#), § 4b (4))
- DOE, including NNSA, will: “Examine and demonstrate how these goals are being achieved through DOE/[NNSA] self-assessments. A rigorous assessment program shall be established that provides sufficient data to determine within desired confidence levels that program goals for ES&H are being achieved, that corrective actions and opportunities for improvement are being identified and implemented. The assessment

part of an effective ES&H program serves to provide reasonable assurance that unknown factors do not exist in either the physical workplace or the management systems that govern work that can cause injury or loss. The assessments will provide a status of performance and corrective actions, if any.” ([DOE P 450.7](#), p. 2)

See also response to Recommendation P-12.

**Recommendation F-9 As appropriate, align/incorporate environmental compliance management factors in accountability elements and roles and responsibilities for management and line supervisors (and, as appropriate, operational staff) in order to ensure support and implementation of environmental compliance management goals and environmental program enhancement.**

DOE, including NNSA, demonstrates commitment to aligning/incorporating environmental compliance management factors in accountability elements and roles and responsibilities for management and line supervisors (and, as appropriate, operational staff) in order to ensure support and implementation of environmental compliance management goals and environmental program enhancement, as evidenced below:

- The Director of Management, Budget and Evaluation, in coordination with other DOE and elements, including NNSA, must develop or revise existing DOE directives, policies, and documents to “Include, as appropriate, the successful implementation of EMSs in the position descriptions and performance evaluations for Senior Executive Service and career Headquarters managers and operations/field/site office managers.” ([DOE O 450.1](#), § 5f (2))
- One of DOE’s, including NNSA’s, Guiding Principles of Integrated Safety Management is “Clear Roles and Responsibilities.” “Clear and unambiguous lines of authority and responsibility for ensuring safety shall be established and maintained at all organizational levels within the Department and its contractors.” ([DOE P 450.4](#), p. 2)
- “We must expect and demand from ourselves as both Federal employees and contractors the highest levels of ES&H performance. To meet our strategic goals in national security, energy security, environmental cleanup, and science leadership, we must integrate ES&H into our work. This Policy reaffirms the Secretary’s commitment to implement and evaluate the effectiveness of Integrated Safety Management (ISM) and Environmental Management Systems (EMS).” ([DOE P 450.7](#), ¶ 3)

**Recommendation F-10 Collect and report to the [DOE/NNSA Program Element] the operational performance metrics required in order for the [DOE/NNSA Program Element] to evaluate environmental compliance management performance.**

DOE and NNSA demonstrate commitment to collecting and reporting to the [DOE/NNSA Program Element] the operational performance metrics required in order for the [DOE/NNSA Program Element] to evaluate environmental compliance management performance, as evidenced below:

- DOE, including NNSA, Operations/Field/Site Office Managers, in coordination with their reporting sites and PSOs, must:

“(1) Report by December 31, 2005, to the Cognizant Secretarial Officer the status regarding whether the EMS requirements of DOE O 450.1 have been integrated into ISMSs by site contractors ....

(6) Conduct operational assessments, such as Pollution Prevention Opportunity Assessments, of site operations to identify opportunities for source reduction, material segregation, recycle/reuse, or other P2 projects. Based on the results of these assessments, implement cost-effective P2 projects, using life-cycle assessment concepts and practices in determining ROI....

(9) Monitor progress toward meeting the P2 requirements of paragraph 4b(3) of this Order, and make such information available annually to the Office of Environment, Safety and Health....

(14) Conduct environmental monitoring, as appropriate, to support the site’s ISMS, to detect, characterize, and respond to releases from DOE[/NNSA] activities; assess impacts; estimate dispersal patterns in the environment; characterize the pathways of exposure to members of the public; characterize the exposures and doses to individuals, to the population; and to evaluate the potential impacts to the biota in the vicinity of the DOE[/NNSA] activity....

(16) Ensure contractor ES&H self-assessment programs are established within the framework of DOE P 450.5 and continue to be effective.”

[\(DOE O 450.1, § 5d \(1, 6, 9, 14, and 16\)\)](#)
- The “Office of Independent Oversight and Performance Assurance must evaluate the effectiveness of DOE[/NNSA] Headquarters and field organization implementation of the requirements of this Order.” [\(DOE O 450.1, § 5e\)](#)
- The DOE/NNSA line ES&H oversight process includes “A robust, rigorous, and credible contractor ES&H self-assessment program linked to the DOE Safety Management System.” This program includes elements that address: “a. Performance measures and performance indicators b. Line and independent evaluations c. Compliance with applicable requirements (Rules, regulatory standards, contract terms) d. Data collection, analysis, and corrective actions e. Continuous feedback and performance improvement. The results and conclusions of the contractor self-assessments are available to DOE [including NNSA].” [\(DOE P 450.5, p. 2\)](#)
- “As an effective contractor self-assessment program is established, the DOE[/NNSA] field element oversight function transitions to:

(a.) Operational awareness of contractor work activities, typically through[/NNSA] local line managers and staff such as facility representatives, subject matter experts, and other specialists;

(b.) Review of performance against formally established ES&H performance measures, other ES&H performance indicators, and using contractor self-assessments;

(c.) Review and assessment in support of required readiness assessments, operational readiness reviews, Safety Management System documentation and onsite verification reviews, and authorization basis document reviews;

(d.) A periodic, value-added appraisal of sufficient frequency and duration to confirm the contractor's safe performance of work and the effectiveness of the self-assessment program. A cost-effective appraisal meeting the intent of this policy might need to be no more than 2 weeks in duration and no more than once a year at each site. The scope of

periodic appraisals, including additional areas of review, is determined by field elements with input from Headquarters and the contractor. DOE/[NNSA] uses the analysis of contractor self-assessment results, performance measures and operational awareness, as input to scoping the annual appraisal. Appraisals by non-line organizations, such as EH, or external organizations, such as the Environmental Protection Agency and state agencies, are fully considered and not ordinarily duplicated. The appraisals are conducted primarily by DOE/[NNSA] employees. Issues identified but unresolved during a periodic appraisal are referred to local DOE/[NNSA] personnel (facility representatives, etc.) for further examination; and  
(e.) For-cause reviews, as necessary.”  
([DOE P 450.5](#), p. 3)

- DOE, including NNSA, “will use appropriate performance measures, will accurately report ES&H incidents, and will assess site and corporate ES&H performance” to achieve its “zero tolerance” goal. ([DOE P 450.7](#), p. 1)

**Recommendation F-11 Collect and report to the [DOE/NNSA Program Element], facility level information regarding environmental compliance management status, successes and failures.**

DOE, including NNSA, demonstrate commitment to collecting and reporting to the [DOE/NNSA Program Element], facility level information regarding environmental compliance management status, successes and failures, as evidenced below:

- “DOE/[NNSA] Operations/Field/Site Office Managers, in addition to the requirements in paragraph 5b and in coordination with their reporting sites and PSOs, must do the following:
  - (1) Report by December 31, 2005, to the Cognizant Secretarial Officer the status regarding whether the EMS requirements of DOE O 450.1 have been integrated into ISMSs by site contractors...
  - (6) Conduct operational assessments, such as Pollution Prevention Opportunity Assessments, of site operations to identify opportunities for source reduction, material segregation, recycle/reuse, or other P2 projects. Based on the results of these assessments, implement cost-effective P2 projects, using life-cycle assessment concepts and practices in determining ROI...
  - (9) Monitor progress toward meeting the P2 requirements of paragraph 4b(3) of this Order, and make such information available annually to the Office of Environment, Safety and Health...
  - (14) Conduct environmental monitoring, as appropriate, to support the site’s ISMS, to detect, characterize, and respond to releases from DOE/[NNSA] activities; assess impacts; estimate dispersal patterns in the environment; characterize the pathways of exposure to members of the public; characterize the exposures and doses to individuals, to the population; and to evaluate the potential impacts to the biota in the vicinity of the DOE/[NNSA] activity...
  - (16) Ensure contractor ES&H self-assessment programs are established within the framework of DOE P 450.5 and continue to be effective.”  
([DOE O 450.1](#), § 5d (1, 6, 9, 14, and 16))

- The “Office of Independent Oversight and Performance Assurance must evaluate the effectiveness of DOE [including NNSA] Headquarters and field organization implementation of the requirements of this Order.” ([DOE O 450.1](#), § 5e)
- Federal line managers are responsible for oversight of contractor performance. A key element of ES&H oversight is “A robust, rigorous, and credible contractor ES&H self-assessment program linked to the DOE Safety Management System ... which includes elements that address:
  - (a.) Performance measures and performance indicators;
  - (b.) Line and independent evaluations;
  - (c.) Compliance with applicable requirements (Rules, regulatory standards, contract terms);
  - (d.) Data collection, analysis, and corrective actions; and
  - (e.) Continuous feedback and performance improvement. The results and conclusions of the contractor self-assessments are available to DOE[/NNSA].” ([DOE P 450.5](#), p. 2)
- “As an effective contractor self-assessment program is established, the DOE[/NNSA] field element oversight function transitions to:
  - (a.) Operational awareness of contractor work activities, typically through DOE[/NNSA] local line managers and staff such as facility representatives, subject matter experts, and other specialists.
  - (b.) Review of performance against formally established ES&H performance measures, other ES&H performance indicators, and using contractor self-assessments.
  - (c.) Review and assessment in support of required readiness assessments, operational readiness reviews, Safety Management System documentation and onsite verification reviews, and authorization basis document reviews.
  - (d.) A periodic, value-added appraisal of sufficient frequency and duration to confirm the contractor's safe performance of work and the effectiveness of the self-assessment program. A cost-effective appraisal meeting the intent of this policy might need to be no more than 2 weeks in duration and no more than once a year at each site. The scope of periodic appraisals, including additional areas of review, is determined by field elements with input from Headquarters and the contractor. DOE[/NNSA] uses the analysis of contractor self-assessment results, performance measures and operational awareness, as input to scoping the annual appraisal. Appraisals by non-line organizations, such as EH, or external organizations, such as the Environmental Protection Agency and state agencies, are fully considered and not ordinarily duplicated. The appraisals are conducted primarily by DOE[/NNSA] employees. Issues identified but unresolved during a periodic appraisal are referred to local DOE[/NNSA] personnel (facility representatives, etc.) for further examination.
  - (e.) For-cause reviews, as necessary.” ([DOE P 450.5](#), p. 3)
- DOE, including NNSA, “will use appropriate performance measures, will accurately report ES&H incidents, and will assess site and corporate ES&H performance” to achieve its “zero tolerance” goal. ([DOE P 450.7](#), p. 1)



**Recommendation F-12 Provide annual analysis, up the functional chain, of resource shortfalls so that [DOE/NNSA] level policymakers are more fully informed. Analysis should include examples of negative implications resulting from these resource shortfalls.**

DOE, including NNSA, demonstrates commitment to providing annual analysis, up the functional chain, of resource shortfalls so that DOE/NNSA level policymakers are more fully informed, as evidenced below:

- DOE, including NNSA, “will use appropriate performance measures, will accurately report ES&H incidents, and will assess site and corporate ES&H performance” to achieve its “zero tolerance” goal. ([DOE P 450.7](#), p. 1)
- DOE Order 231.1A states as its objective: “To ensure timely collection, reporting, analysis, and dissemination of information on environment, safety, and health issues as required by law or regulations or as needed to ensure that the Department of Energy (DOE) and National Nuclear Security Administration (NNSA) are kept fully informed on a timely basis about events that could adversely affect the health and safety of the public or the workers, the environment, the intended purpose of DOE[NNSA] facilities, or the credibility of the Department.” ([DOE O 231.1A](#))

# References

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## **Other References**

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