

Approved: 5-22-01  
Review Date: 5-22-03

# **SAFETY MANAGEMENT FUNCTIONS, RESPONSIBILITIES, AND AUTHORITIES MANUAL**

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**U.S. DEPARTMENT OF ENERGY**

**Assistant Secretary for  
Environment, Safety and Health**

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All Departmental Elements

**INITIATED BY:**  
Office of Environment, Safety and Health

## **SAFETY MANAGEMENT FUNCTIONS, RESPONSIBILITIES AND AUTHORITIES MANUAL**

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1. **PURPOSE.** This Manual provides the responsibilities of Headquarters and field element offices required by DOE P 411.1, SAFETY MANAGEMENT FUNCTIONS, RESPONSIBILITIES AND AUTHORITIES POLICY, dated 1-28-97. It also contains detailed requirements to supplement the policy's direction for each DOE organization having safety management functions to establish and maintain separate documentation of their responsibilities and authorities.
2. **SUMMARY.** This Manual is composed of nine chapters. The first three contain an introduction, objective and scope. The fourth describes the intended method of safety management at DOE, and the fifth is an overview of the means of implementing DOE P 450.4, SAFETY MANAGEMENT SYSTEM POLICY. The sixth describes the processes to be used in coordinating safety management direction to the field from multiple program offices. The seventh deals with the delegation of safety management authorities, and the eighth details the requirements for each Headquarters and field element's documentation of their functions, responsibilities and authorities assignments. The ninth chapter contains the responsibilities themselves, both as they appear in DOE directives, and as they are assigned to implement regulations and Secretarial delegations. There are three Appendices which, respectively, list the statutes, regulations, and directives upon which the Manual is based, the acronyms used, and the definitions of terms.
3. **REFERENCE.** DOE P 411.1, SAFETY MANAGEMENT FUNCTIONS, RESPONSIBILITIES AND AUTHORITIES POLICY, dated 1-28-97. Other directives used in preparing the Manual are listed in its Appendix A.
4. **CANCELLATION.** DOE M 411.1-1A, SAFETY MANAGEMENT FUNCTIONS, RESPONSIBILITIES, AND AUTHORITIES MANUAL, dated 10-18-99.
5. **CONTACT.** Questions concerning this Manual should be addressed to the Office of Nuclear and Facility Safety Policy, (301) 903-2535.



SPENCER ABRAHAM  
Secretary of Energy

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## 1. INTRODUCTION

The Department of Energy (DOE) is committed to a management system approach to ensure work is performed in a manner that protects the worker, the public, and the environment. This approach is reflected in the guiding principles and core management functions established in DOE Policy (DOE P) 450.4, *Safety Management System Policy*, and codified in the Department of Energy Acquisition Regulation (DEAR) [Title 48, Code of Federal Regulations (CFR) 970.5204-2 and 970.5223-1]. Among these guiding principles are the responsibility of DOE line management<sup>1</sup> for safety<sup>2</sup> and the necessity for clearly defining and understanding DOE functions, responsibilities, and authorities (see Appendix C for the definitions of “function,” “responsibility,” and “authority” as used in this Manual).

The strategy for implementing these two guiding principles is further defined by DOE P 411.1, *Safety Management Functions, Responsibilities, and Authorities Policy*, which requires development of—

- a. a corporate-level document that identifies the Departmental organizations that are responsible for the primary safety management functions and defines the requirements and authorities for any assignments of responsibilities and
- b. a framework for the development of lower-tier documents to further describe line, support, oversight, and enforcement organization implementation.

This Manual is that corporate-level document, supplying the framework for implementing the Secretary’s policies for safety management, which are applicable to all DOE elements including the National Nuclear Security Administration (NNSA).

## 2. OBJECTIVE

The purpose of the corporate-level and lower-tier documents is to define clearly Department functions, responsibilities, and authorities for safety management. This Manual is a mechanism for implementing the Department’s guiding principles established in DOE P 450.4. DOE core functions for integrated safety management (ISM) are described here in the sequence in which they appear in DOE P 450.4, and the responsibilities and authorities for their execution are assigned to various secretarial offices, along with requirements covering any further assignments and provisions for dealing with potential conflicts among DOE organizations. Though this Manual is part of the DOE Directives System, the associated lower-tier functions, responsibilities, and authorities (FRA)

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<sup>1</sup>DOE line management refers to that portion of the Department organization that has a linear reporting relationship extending from the Secretary to the people in the facilities directly performing the Department’s missions. It is distinct from DOE support organizations, such as those of the Office of the Assistant Secretary for Environment, Safety and Health and the Office of Management and Administration, which also have safety support responsibilities and functions.

<sup>2</sup>Throughout this document, the term safety is used synonymously with the term environment, safety, and health (ES&H) to encompass protection of the public, the workers, and the environment.

documents, which describe further delegations of safety authority within each of the secretarial offices, are not.

As stated in DOE P 411.1, each line, support, oversight, assessment, and enforcement organization within the Department is responsible for establishing and documenting how the specific functions and responsibilities assigned to it in this Manual and other directives are properly discharged. Lower-tier FRA documents will be prepared and maintained by each of these organizations to define its safety management functions and identify who has the responsibility and authority to perform those functions.

### 3. SCOPE

This Manual addresses the corporate-level functions, responsibilities, and authorities for DOE organizations responsible for the overall direction of ISM systems throughout the DOE complex, including both nuclear and non-nuclear facilities. The corporate-level responsibilities of this Manual are based on the corporate-level responsibilities defined in DOE directives and existing delegations and assignments. Contractor functions, responsibilities, and authorities for safety management are described in the safety management system descriptions and implementation plans required by their contracts.

This Manual applies to all Department elements performing safety management functions, including the NNSA, except the Naval Nuclear Propulsion Program, the Power Marketing Administrations, and privatized activities for which these functions are not included in the contract.

In accordance with DOE Manual (DOE M) 251.1-1A, *Directives System Manual*, this Manual must be reviewed at least every 2 years. In practice, changes in functions, responsibilities, and authorities occur often enough to render this review period far too long. To ensure that this Manual is a living document, the Office of Environment, Safety and Health (EH) will review potential changes to this Manual at least every 6 months to determine whether the safety significance of these potential changes merits initiation of a formal revision to this Manual.

### 4. HOW THE DEPARTMENT INTENDS TO DO WORK

DOE P 450.4 identifies five core functions of the Department's ISM system. Figure 1 illustrates the flow and relationship of these functions.<sup>3</sup> In addition to the five core functions, Figure 1 also illustrates the role of *direction* in safety management (i.e., corporate-level involvement). Those activities that define and shape the missions of the Department, such as the development of strategic plans, budget execution plans, and safety policies and requirements, are considered to be direction. The five core safety management functions, together with corporate direction, define the necessary structure for any work activity that could affect the safety of the public, the workers, or the environment. The degree of rigor in addressing these functions at a particular facility will vary based

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<sup>3</sup>Figure 1 is from Figure 3 of DOE G 450.4-1B, *Integrated Safety Management System Guide for use with Safety Management System Policies (DOE P 450.4, DOE P 450.5, and DOE P 450.6); the Functions, Responsibilities, and Authorities Manual; and the Department of Energy Acquisition Regulation*.

on the work activity and the hazards involved. The following sections of this Manual identify the corporate functions in each area to be performed by DOE employees. Taken together with the delegations of authority and details of execution identified in the lower-tier FRA documents, procedures, and contractor management documents, they identify both the activities necessary to provide reasonable assurance that the public, the workers, and the environment are adequately protected and the organizations and individuals accountable for effective accomplishment of those activities.

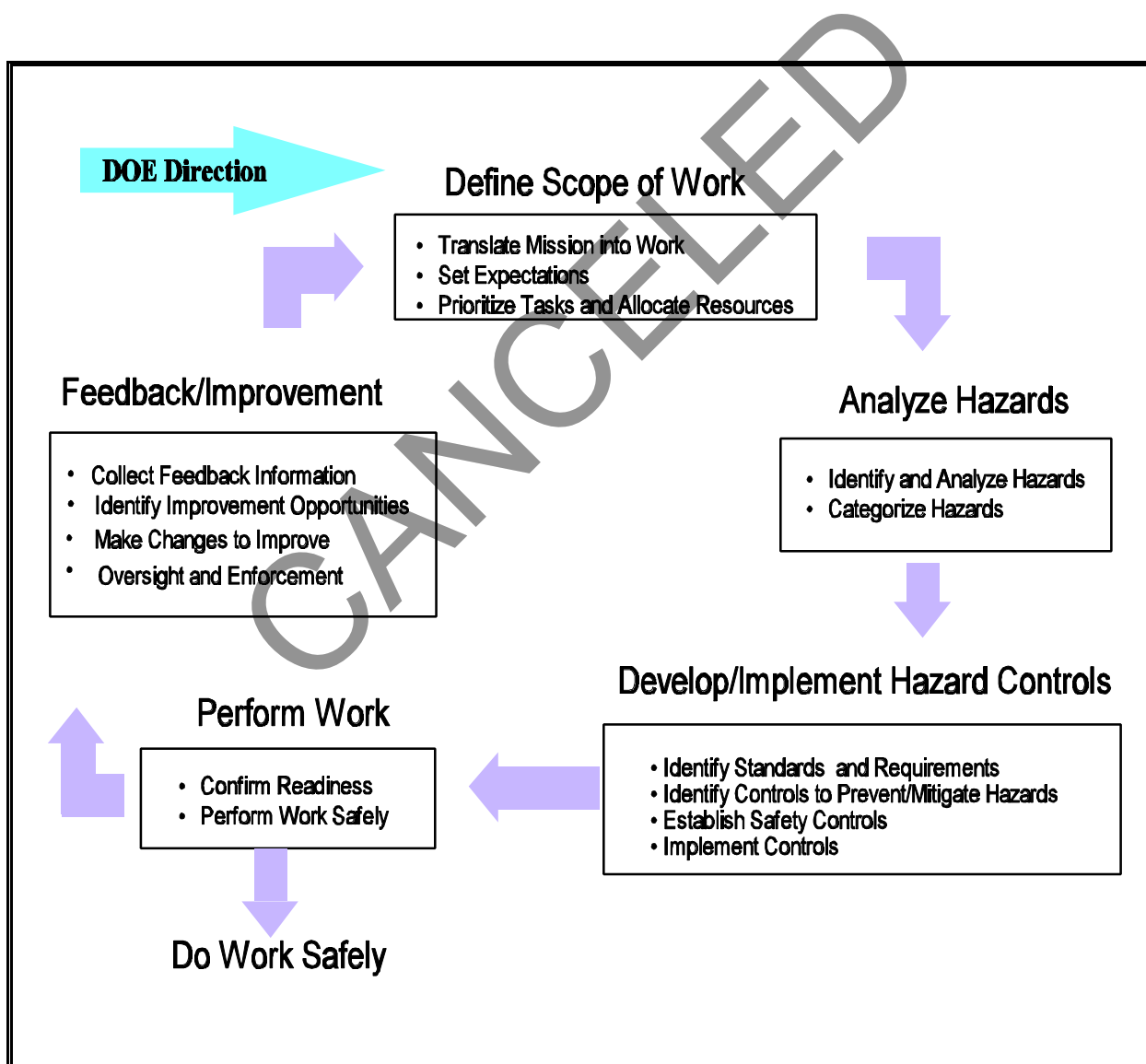


Figure 1. Safety Management Functions.



## 5. OVERVIEW OF DEPARTMENTAL SAFETY MANAGEMENT

DOE has a diverse set of missions and responsibilities that include research, dissemination of scientific information, production and maintenance of special nuclear materials and weapons for national defense, development of energy technologies, development of energy and safety regulations and standards, cleanup of nuclear production sites, and encouragement of nuclear energy for peaceful purposes. Headquarters and field organizations with responsibility for mission-related work are considered to be line organizations. The primary responsibility for safety lies with line management. At Government-owned, contractor-operated (GOCO) facilities, DOE line management flows from the Secretary through the program offices to the field element and then to management and operating contractors. At Government-owned, Government-operated (GOGO) facilities, Department employees are responsible for operating the facility and performing the work, and contractors are involved only in supporting roles. DOE is totally responsible for all aspects of safety management at GOGO facilities. Program secretarial offices (PSOs) provide direction and define the missions and budgets to be implemented by the field. For each field office, a lead program secretarial office (LPSO) is responsible for implementation of policy promulgated by Headquarters staff and support organizations. In those cases in which a program-specific facility or laboratory is present on a site, a single PSO is assigned as the cognizant secretarial office (CSO) for that facility or laboratory and is accountable for the environment, safety, and health (ES&H) within its confines. A PSO having work performed at a field element for which it is not the LPSO or CSO is responsible for providing broad program policy and direction to the field element manager (FEM) and for budgeting to support program work and an appropriate share of the landlord costs.

The CSO usually delegates operating authority of an installation/facility to the FEM, who has direct responsibility for day-to-day control. Delegation of safety authority to the FEM does not relieve the CSO of responsibility for safety. Program offices are responsible for providing the direction necessary to ensure that missions are performed safely and within budget; FEMs direct, plan, and monitor the activities of DOE and contractor employees.

The CSO monitors field element safety management activities in a manner similar to that which he/she uses to oversee his/her other programmatic responsibilities. Accordingly, field elements keep CSOs informed of program status and forward timely information on issues that affect those programs so that the CSO can make decisions on program direction and resource allocation.

EH, which is not a line management organization, is responsible for carrying out the following three functions in support of the safety management system at Headquarters and in the field:

- **Independent Oversight.** EH is the Headquarters element conducting independent oversight and assessment of ES&H activities. The Office of Independent Oversight and Performance Assurance (OA) oversees emergency management activities and security
- **Enforcement.** EH carries out the Department's function under the Price-Anderson Amendments Act of 1988 for investigation and enforcement of potential nuclear and radiological safety violations. A Memorandum of Understanding, dated January 12, 2001, defines the roles and responsibilities for investigation and enforcement at NNSA facilities.

- **Departmental Policy, Technical Support, and Regulatory Issues.** EH has the lead for developing and proposing Departmental ES&H policy, rules, and regulations and for establishing standards and coordinating resolution of associated issues in concert with field element needs. For ES&H matters, EH confers with Federal agencies and other external stakeholders and, in consultation with line management, provides the Department with expert resources and programs. The Office of Security and Emergency Operations provides policy, technical support, and coordination of regulatory issues pertaining to emergency management and manages the Emergency Operations Center.

In many respects, the Department is a self-regulating organization. Specific authority for self-regulation in the performance of its functions in the use and possession of special nuclear, source, and by-product materials is provided in Section 161, General Provisions, of the Atomic Energy Act (AEA) and in Sections 105 and 501 of the Department of Energy Organization Act (DOEOA).

The AEA, section 161.b, allows DOE to establish by rule, regulation, or Order, such standards and instructions necessary or desirable “to protect health or to minimize danger to life or property.” Section 161.i allows DOE to prescribe regulations or Orders necessary to govern any activity authorized under the AEA, including standards and restrictions “governing the design, location, and operation of facilities used in the conduct of such activity, in order to protect health and to minimize danger to life or property.” Section 161.p allows DOE to “make, promulgate, issue, rescind, and amend such rules and regulations as may be necessary to carry out the purposes of this Act.”

Section 105 of the DOEOA gives DOE broad authority to “assure incorporation of national environmental protection goals in the formulation and implementation of energy programs, and to advance the goals of restoring, protecting and enhancing environmental quality, and assuring public health and safety.” [See sections 301(a), 641, and 644; see also Energy Reorganization Act of 1974, sections 103, 104, 105, and 201(f).]

The NNSA Act requires that, in carrying out the mission of the NNSA, the Administrator shall ensure that all operations and activities of the NNSA are consistent with the principles of protecting the environment and safeguarding the safety and health of the public and of the workforce of the NNSA. The Act also requires NNSA to comply with all applicable environmental, safety, and health statutes and substantive requirements and develop procedures to meet such requirements. It states that nothing shall diminish the authority of the Secretary to ascertain and ensure that compliance with all applicable ES&H statutes and substantive requirements occurs. The Act gives the Secretary the responsibility for establishing policy for the NNSA. The Secretary may direct non-NNSA officials to review programs and activities of NNSA and make recommendations to the Secretary regarding administration of those programs and activities, including consistency with other similar programs and activities of the Department. Each NNSA employee is responsible to and subject to the authority, direction, and control of the Secretary acting through the Administrator of the NNSA, the Administrator, or his delegate. Each NNSA employee and NNSA contractor employee shall not be responsible to, or subject to, the authority, direction, or control of any other officer or employee of DOE who is not an NNSA employee. (See National Defense Authorization Act for Fiscal Year 2000, P.L. No. 106-65, 113 Stat. 966; 50 U.S.C. 2453 et seq., amended by National Defense Authorization Act for Fiscal Year 2001, P.L. No. 106-377, 114 Stat. 1441, Oct. 27, 2000.)

EH is responsible for developing safety requirements and standards, assisting line management in properly interpreting safety standards, and performing independent oversight of line management activities. The purpose of EH's independent oversight is to report to DOE management on the status of safety and environmental protection as seen by those not associated with mission accomplishment. EH also analyzes ES&H performance, maintains safety data systems for the Department, advises the Secretary on all issues relevant to safety, provides subject matter expertise on various topics, and participates in assessments of field ES&H performance. For nuclear activities, EH is responsible for the enforcement of nuclear safety requirements through its Office of Enforcement and Investigations, EH-10. The Office of the General Counsel (GC) is responsible for interpreting the legal aspects of nuclear safety requirements. OA is responsible for oversight of and reporting to management on the status of emergency management.

Four deliberative committees have been formed by the Secretary to ensure coordinated approaches to various aspects affecting safety management. The Secretarial Safety Council was formed to develop performance standards to be used to hold Federal personnel accountable for effective and timely implementation of ISM and to oversee the effectiveness of the DOE employee concerns program. The Field Management Council (FMC) was established to assure consistent implementation of DOE policy in ES&H, safeguards and security, and business management. The Federal Technical Capability Panel was created by DOE P 426.1, *Federal Technical Capability Policy for Defense Nuclear Facilities*, and is responsible for implementing the program supporting that policy. The Aviation Board of Directors was created by DOE Order (DOE O) 440.2, *Aviation*. On April 15, 1999, the Secretary appointed the Director of the Office of Aviation Management as the Senior Aviation Management Official and as the Chair of the Aviation Board of Directors. The responsibilities of these committees regarding safety appear in paragraph 9 of the Manual, and their membership is outlined in Appendix C.

Many Department activities, such as environmental protection, waste management, and privatized activities, receive external as well as internal regulation. For such activities, the responsibilities and authorities of the external organizations are defined in laws, regulations, and memorandums of understanding, which supersede conflicting or inconsistent responsibilities and authorities identified in this Manual. However, external regulation of those activities does not relieve DOE line management of its responsibilities.

If a directive, memorandum, or written delegation of authority conflicts in any way with the requirements of this or a lower-tier FRA document, it is the responsibility of the organization maintaining that FRA document to resolve the conflict by revising either the document or the directive. This Manual generally sets forth functions, responsibilities, and authorities that are already assigned to DOE elements by existing documents such as directives, delegations of authority, memoranda, or other documents.

## **6. DIRECTION FROM MULTIPLE PROGRAM OFFICES**

The CSO is responsible for sitewide line oversight of operations of all programs having work performed at its sites. Non-LPSOs are viewed as customers of the FEM; they provide broad program policy and direction, budget to support program work, and an appropriate share of the landlord costs. LPSOs are responsible for resolving disputes among PSOs, CSOs, and field

elements. Any conflict between a PSO and the LPSO concerning direction to the field is to be resolved by the FMC. Any conflict between an NNSA Deputy Administrator and a non-NNSA PSO is to be resolved by the NNSA Administrator and the Secretary.

Policies, requirements and guidance developed by the staff and support offices are reviewed by the FMC, and, if approved, passed to the LPSOs for implementation. It is the responsibility of the FMC to ensure consistency in the application of DOE policy and to maximize uniformity of operational management approaches.

## **7. DELEGATIONS**

The Secretary receives responsibilities and authorities from statutes and Congress and may delegate those authorities throughout the Department and establish further responsibilities. These limited formal delegations are found in the Secretarial Delegation of Authority System. (See <http://www.directives.doe.gov/delegations.htm>). Secretarial delegations may be delegated further unless redelegation is prohibited by regulation or other obligation that specifically prohibits redelegation. Although the authority for executing specific functions can be further delegated down the line to the individual who actually performs the function, the full responsibility for that function cannot be delegated, and delegates are to be held accountable for impropriety or dereliction in the use of delegated authority. Delegations of authority for specific functions that differ among individual DOE organizations cannot be specified in this Manual.

Paragraph 9 assigns responsibilities and authorities for specific corporate-level safety functions to DOE officials. These authorities may be assigned by means of DOE directives, mission statements, or memorandums, and, within an organization, by that organization's FRA document. Records of assignment and delegation must be kept current; that is, they must be revised to reflect changes in personnel, directives (including the applicable FRA documents), and policy. Such delegation of authority or assignment of responsibility does not relieve the delegating officer of responsibility for the outcomes of the exercise of that authority. Delegation of approval authority or other assignment of responsibility does not preclude program offices from issuing requirements, expectations, and guidance affecting that authority or from participating in field element interactions with the operating contractor. Program offices must coordinate any interactions with an operating contractor through the cognizant field element.

The following restrictions apply to the delegation of authority and other assignment of responsibility.

- a. All delegations of authority must be in writing and must be provided to the delegate. This document must establish a clear understanding between the delegating authority and the delegate of the specific function delegated and all circumstances under which the authority may be exercised, including any restrictions or prohibitions related to further delegation.
- b. The delegation may be rescinded by the delegating authority in writing at any time.
- c. Existing informal agreements and other assignment of responsibility between PSOs and FEMs must be documented in the PSO and FEM FRA documents.

- d. Delegations must be included in both the FRA document of the delegating organization and the FRA document of the organization receiving the delegation. To ensure that delegations of authority are correctly included, FRA documents must be reviewed by other organizations identified as having an interface.
- e. Permanent delegations are in effect until rescinded in writing by the delegating official. Temporary delegations specify when authority is to be terminated.
- f. When a DOE signature is required, the signing official must have written authority.
- g. Delegation must be limited to the authorities within the power of the delegator; activities outside his/her authority cannot be delegated.

## **8. SECRETARIAL OFFICE AND FIELD ELEMENT FUNCTIONS, RESPONSIBILITIES, AND AUTHORITIES DOCUMENTS**

Each Headquarters and field office organization, including those within the NNSA, with a mission that affects the safety of work performed at DOE facilities is required to develop and implement a lower-tier FRA document. This lower-tier FRA document must capture the safety management functions and responsibilities necessary to accomplish the intent of DOE P 111.1, *Departmental Organization Management System*, and other DOE directives; other Government agencies' regulations; and safety management mechanisms. It must also describe the organization and its line management. The format of these FRA documents is not prescribed so that each organization can develop a format most suitable and effective for its specific needs. However, FRA documents must provide a breakdown of applicable functions contained in this Manual and clearly identify any authority that has been transferred to or from another organization. The PSO FRA documents must capture all PSO organizational authorities within this Manual; FEM FRA documents must capture all FEM authorities within this Manual and all authorities delegated by the applicable PSOs.

Appendix A contains a list of current and canceled DOE directives that may be useful in identifying actions and responsibilities appropriate for certain safety management functions. The requirements or processes in canceled directives are no longer considered mandatory by the Department because they are superseded or eliminated; however, canceled directives incorporated in DOE contracts are mandatory as specified by the contract terms and conditions. The FEM will negotiate new directives into the contracts they administer to ensure that safety management functions are aligned to the currently effective directive. If there is a conflict between the FEM role in the current and canceled directives, the LPSO and OPI must be informed and the FEM must recommend a solution to the conflict. Conversely, FEMs cannot hold their contractors responsible for any directives that are not in their contracts.

The process for coordinating directions from multiple PSOs to a FEM is described in paragraph 6 of this Manual. These coordination functions and responsibilities must be specified in the FRA documents for FEMs and affected PSOs. Each FRA document must be approved by the senior official of that organization, who is also responsible for necessary revisions. To ensure that

interfaces with other organizations, such as memorandums of agreement or of understanding, are correctly included, FRA documents must be reviewed by other organizations identified as having an interface.

Each FRA document must be managed by a change control process and must identify an organizational element or position responsible for maintaining the document and its interfaces with other organizations.

## **9. DEPARTMENTAL SAFETY MANAGEMENT FUNCTIONS, RESPONSIBILITIES, AND AUTHORITIES**

### **9.1 Provide Direction**

DOE elements responsible for functions relating to safety management include Headquarters and field line management and support organizations.<sup>4</sup> Each Departmental element is responsible for planning its activities, budgeting and allocating available resources to meet its objectives, contributing to the development and implementation of requirements, and meeting Departmentwide objectives. In general, PSOs are responsible for defining and communicating the program's mission, objectives, high-level parameters (performance measures), and expectations to the FEMs. FEMs are responsible for executing contracts consistent with DOE policy and requirements and for monitoring and assessing day-to-day performance under the contracts.

The responsibilities and authorities for providing direction relating to ensuring safety are delineated below.

#### Secretary of Energy Responsibilities:

The Secretary is responsible for overall direction within the Department and for establishing and maintaining delegations of his or her authorities and responsibilities to other DOE officers (see Section 7, Delegations).

#### Aviation Board of Directors Responsibilities:

- a. Recommend approval of Departmentwide policies, procedures, and regulations pertaining to the procurement, safety, operation, and disposal of aircraft and aviation services within the Department.
- b. Identify, recommend, and facilitate efficiency and safety measures within the Departmental Aviation Program.
- c. Serve as the focal point for quality management within the Aviation Program.

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<sup>4</sup>Integrated Safety Management Guiding Principles 1, *Line Management Safety and Environmental Responsibility*, and 2, *Clear Roles*, establish that the line management processes of assigning programmatic direction are to be integrated with safety management.

- d. Evaluate recommendations and ideas for improvements in the Aviation Program.
- e. Assist with other business requiring decisions outside the scope or authority of individual aviation managers.

EH Responsibilities:

The Assistant Secretary for Environment, Safety and Health has been assigned as the Designated Agency Safety and Health Officer for DOE by the Secretary to represent effectively the interest and support of the Secretary in the management and administration of the DOE occupational safety and health program, as provided in 29 CFR 1960.6.

**9.1.1 DOE Strategic Plans, Including Mission Statements**

DOE P 450.4, *Safety Management System Policy*, states “The Department and Contractors must systematically integrate safety into management and work practices at all levels so that missions are accomplished while protecting the public, the worker, and the environment. This is to be accomplished through effective integration of safety management into all facets of work planning and execution.”

Secretary of Energy Responsibilities:

Prepare and approve the Department’s Strategic Plan and Mission Statement.

Deputy Secretary Responsibilities:

Serve as Chief Operating Officer of the Department and as senior emergency management policy official.

Secretarial Officer Responsibilities:

Provide input to and implement the provisions of the Secretary’s Strategic Plan, including the Department’s mission statement.

Senior Aviation Management Official Responsibilities:

Represent the Secretary in a broad spectrum of aviation activities involving the acquisition, use, and disposal of aircraft and aviation services by the Department and its contractors.

**9.1.2 Secretarial Office Strategic Plans, Including Mission Statements**

Deputy Secretary Responsibilities:

Approve secretarial office strategic plans and mission statements.

Secretarial Officer Responsibilities:

- a. Prepare secretarial office strategic plans and mission statements, and submit them to the Deputy Secretary for approval.

- b. Implement DOE and secretarial office strategic plans and mission statements.

### **9.1.3 Program Secretarial Office Mission Assignment to Field Element**

#### PSO Responsibilities:

Provide mission assignments and program guidance to FEMs.

#### FEM Responsibilities:

Review, provide input to, and implement program guidance developed by the PSO.

#### Director, Office of Security and Emergency Operations, Responsibilities:

Provide overall direction for the management and allocation of resources and development of capabilities for emergency management activities.

### **9.1.4 Budget**

Guiding Principle 4 of DOE P 450.4 is “Balanced Priorities. Resources must be effectively allocated to address safety, programmatic, and operational considerations. Protecting the public, the workers, and the environment must be a priority whenever activities are planned and performed.”

#### **9.1.4.1 Budget for program**

##### PSO Responsibilities:

Prepare the proposed budget for the program office and coordinate with the Headquarters Chief Financial Officer. Budgeted amounts requested by the NNSA are to be set forth separately within the amounts requested for DOE.

##### EH Responsibilities:

- a. Provide independent advice to the secretary, CFO, and PSO’s regarding the adequacy of program plans and budgets to address major ES&H needs as identified through the processes related to compliance with 48 CFR 970.5240-2 and 970.5223-1.
- b. Review all operating contracts and requests for proposals to ensure ES&H is adequately addressed.

##### FEM Responsibilities:

Participate in preparation of the proposed budget and provide input to PSO and the LPSO on the adequacy of the proposal to support missions and safety initiatives.

##### Chief Financial Officer Responsibilities:

Approve the final budget for each PSO consistent with legislative mandates and Department budgets.



#### **9.1.4.2 Budget for environment, health, and safety infrastructure**

##### CSO Responsibilities:

The CSO is responsible for long-term planning, landlord activities, and facilitywide safety.

##### LPSO Operating Officer Responsibilities:

- a. Assist the LPSO in managing operational functions and activities.
- b. Ensure that feedback information from safety management systems is used effectively to define necessary future improvements.

##### PSO Responsibilities:

Provide broad program policy and direction to the field, budget to support program work and an appropriate share of the landlord costs.

##### FEM Responsibilities:

Participate in preparation of the proposed budget and provide input to the PSO and LPSO on the adequacy of the proposal to support landlord activities and safety initiatives; implement corrective actions and safety improvements.

#### **9.1.5 Resource Allocations to FEM**

##### PSO Responsibilities:

Allocate resources consistent with the final approved budget to accomplish missions and safety initiatives.

##### FEM Responsibilities:

Review the proposed allocations and provide input to the PSO regarding their adequacy to meet mission and safety initiatives. If the proposed budget is insufficient, propose an alternate plan to the PSO that can be accomplished within the budget and/or identify needed additional funds.

#### **9.1.6 Technical Qualification and Competency**

Each DOE element is responsible for ensuring that its employees are qualified to perform their assigned functions. The Director of the Office of Management and Administration (MA-1) is responsible for managing the DOE program to develop and maintain personnel qualification standards and training materials for use by DOE employees to improve and maintain their competence. Use of those standards in a training and qualification program for Departmental technical personnel is an integral part of safety management.<sup>5</sup>

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<sup>5</sup>Guiding Principle 3 of DOE P 450.4 is “Competence Commensurate with Responsibilities. Personnel possess the experience, knowledge, skills, and abilities that are necessary to discharge their responsibilities.”

### **9.1.6.1 Technical qualification and competency at defense nuclear facilities**

Each DOE element associated with the operation of a defense nuclear facility is responsible for developing and maintaining a technically competent workforce to accomplish its missions in a safe and efficient manner through the Federal Technical Capability Program. The Federal Technical Capability Panel, which consists of senior technical managers from across the Department, oversees implementation of the Federal Technical Capability Program and the Senior Technical Safety Manager program. The elements of this program include recruiting and hiring technically capable personnel, continuously developing the technical expertise of the workforce, and retaining critical technical capabilities within the Department at all times.

#### Deputy Secretary Responsibilities:

Provides direction and oversight for the Federal Technical Capability Panel.

#### FEM and Secretarial Officer Responsibilities:

- a. Provide adequate resources and support for the Federal Technical Capability Program.
- b. Implement the Federal Technical Capability Program for their organizations.
- c. Ensure that personnel are qualified to perform their safety management functions and that these qualifications are reflected in position descriptions and performance criteria.

### **9.1.6.2 Contractor Training Programs**

It is the responsibility of DOE to assure that contractor employees maintaining and operating DOE facilities are trained to perform their duties safely and efficiently.

#### CSO Responsibilities:

- a. Assume line management responsibility and accountability for nuclear facility personnel qualification programs;
- b. Ensure that resources are provided for developing, implementing, and maintaining nuclear facility personnel training and qualification programs;
- c. Perform reviews to confirm implementation of DOE 5480.20A, *Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities*, using DOE-STD-1070-94, *Guidelines for Evaluation of Nuclear Facility Training Programs*;
- d. Assure that Cognizant Secretarial Office personnel responsible for training are proficient in personnel training processes and requirements, and that they have diverse expertise so that important areas related to nuclear and occupational safety are covered; and
- e. Approve assessments for full-scope or part-task simulators at Category A test and research reactor facilities.

EH Responsibilities:

- a. Develop and recommend the promulgation and maintenance of training requirements, standards, and guidance materials, and conduct workshops as necessary, for implementing the requirements of DOE 5480.20A;
- b. Monitor reports (safety analysis reports, appraisal and inspections reports, training plans, etc.) relative to nuclear facility personnel qualification activities to assess implementation of DOE 5480.20A and to identify needed improvements;
- c. Develop and recommend the promulgation of Departmentwide training requirements for general employee/worker safety training which are consistent with the requirements promulgated by the Occupational Safety and Health Administration, the Nuclear Regulatory Commission, and the Environmental Protection Agency (EPA); and
- d. Assure that EH personnel responsible for training are proficient in personnel training processes and requirements, and that they have diverse expertise so that important areas related to nuclear, radiological, environmental, and occupational safety are covered.

As the DOE element responsible for independent oversight and assessment of line management's environment, safety, and health performance—

- a. in coordination with the CSO and FEM, perform independent reviews of nuclear facility personnel training and qualification programs using DOE-STD-1070-94, as appropriate, and provide results of these reviews to the CSO and FEM for resolution and
- b. monitor and audit activities of the CSO and FEM to ensure the requirements of DOE 5480.20A are consistently applied.

FEM Responsibilities:

- a. Identify and submit resource requests to the CSO to provide for adequate implementation of personnel qualification programs;
- b. Perform periodic systematic evaluations of training and qualification programs using DOE-STD-1070-94 and provide day-to-day oversight of nuclear facility personnel training and qualification activities;
- c. Review and approve each Training Implementation Matrix for nuclear facilities;
- d. Assure that field office staffing includes an adequate number of persons having expertise in the area of personnel training;
- e. Assure that DOE contractors to whom DOE 5480.20A is applicable, implement its requirements;

- f. Review the certification and recertification of shift supervisors, senior reactor operators, reactor operators, and fissionable material handlers at Hazard Category A reactors and high-hazard non-reactor nuclear facilities.
- g. Approve contractor procedures which are established to grant exceptions to specific training or qualification requirements for an individual;
- h. Approve, on a case by case basis, contractor requests for certification extensions; and
- i. Approve contractor assessments of the need for a simulator at Hazard Category A test and research reactors.

## **9.2 Define Scope of Work**

After establishing its missions and resources, DOE determines the specific work that needs to be done at its sites to meet those missions. Department expectations, site and contractor capabilities, safety priorities, and available resources are considered in defining the scope of work to be performed. Activities must be prioritized to ensure that DOE resources are most effectively applied. The Department's expectations are defined in contracts and regulations for GOCOs and in internal documents for GOGOs. DOE and the contractor can execute contract modifications for changes in the negotiated scope of work based on actual work planning and performance.

### **9.2.1 Translate Mission Into Work**

Each field element is expected to develop appropriate documents delineating its plan of work, including scope, schedule, and funding allocations for each fiscal year. These plans may be documented in various formats but, at a minimum, should reflect the PSO mission assignments to the field and the mission in terms of work by facilities, projects, and programs.

### **9.2.2 Set Expectations**

Expectations for DOE organizations and employees are set through DOE directives (Policies, Orders, Manuals, etc.) and regulatory requirements. Contracts and regulations set expectations for contractors. Expectations for FEMs are contained in instructions, specific goals, and required levels of performance received from PSOs and the NNSA Administrator. (See DOE G 120.1-5, *Guidelines for Performance Measurement*.)

The following subsections describe the various directives used within the Department to issue safety direction to Department employees. Rules are the equivalent of law and are enforceable regardless of contract language. Policies, Orders, Manuals, and Notices are mandatory for Department staff and are to be implemented at all DOE organizations. Guides and Technical Standards are not mandatory unless specifically referenced as requirements in a contract. For further information on Department directives, see DOE O 251.1A, *Directives System*, and DOE M 251.1-1A, and for the application of Department directives to contractors, see 48 CFR 970.5204-2, Laws, Regulations, and DOE Directives, and 48 CFR 970.0470, DOE Directives.

**9.2.2.1 Policies, Orders, Notices, Manuals, Guides, and page changes**Secretary of Energy Responsibilities:

Approve Department Policies.

Deputy Secretary Responsibilities:

Approve Orders and Manuals.

FMC Responsibilities:

- a. Review and approve all orders and manuals that would affect the field elements and more than one PSO.
- b. Acting as the Directives Management Board, resolve issues that cannot be resolved by either the OPI or Directive Systems Manager (MA-4) or refer issues to the Secretary. (See DOE M 251.1-1A.)

Office of Primary Interest (OPI) Responsibilities:

- a. Prepare draft directives (i.e., Policies, Orders, Notices, Manuals, Guides, and page changes), coordinate them with other offices (see DOE M 251.1-1A), and submit final draft Orders and Manuals that have the potential to affect field elements and more than one PSO to the FMC for review. For submission to the FMC, a Deputy Assistant Secretary or an equivalent or higher official in the OPI must approve the draft and its accompanying justification documents.
- b. Revise directives as necessary, and provide technical interpretation of directive requirements.
- c. Submit final draft Policies, Orders, Notices, Manuals, Guides, and page changes to MA-4 for issuance, unless they affect field elements and are presented to the FMC.
- d. Designate a Directive Development Manager to coordinate review of directives (see DOE M 251.1-1A).
- e. Identify the program offices that have the potential to be affected and coordinate with PSOs for those program offices for review and comment; coordinate with program counsel in the Office of General Counsel for review and comment.
- f. Provide staff to participate on focus groups or technical development teams.

PSO and the NNSA Administrator Responsibilities:

- a. Review and comment on proposed directives.

- b. Recommend technical and cost-saving improvements, where appropriate.
- c. Provide staff to participate on focus groups or technical development teams to ensure a quality product is developed.
- d. Alert the OPI to any inconsistencies between the proposed directive and Department missions.

FEM Responsibilities:

- a. Identify the directives or portions of directives applicable to the field organization and incorporate these requirements into the management system as appropriate. Apply to the cognizant PSO for exemptions from ES&H requirements of directives for Category 1 Hazard Nuclear Facilities. For other activities and facilities, where this authority is delegated, approve exemptions to directives except where otherwise stated in the directive for which an exemption is desired.
- b. Review and comment on proposed Policies, Orders, Notices, Manuals, Guides, and page changes.
- c. Recommend technical and economical improvements, where appropriate.
- d. Provide staff to participate on focus groups or technical development teams.
- e. Provide comments to OPI if directives are inconsistent with field element missions.
- f. Determine what actions by the field element are necessary to implement the directives.

Contracting Officer Responsibilities:

Negotiate with each contractor, in consultation with FEM, LPSO, and PSO, to establish which directives or provisions of directives, if any, are to be included in the contract.

EH Responsibilities:

When not the OPI—

- a. Review and comment on proposed directives. Ensure proposed Policies, Orders, Notices, Manuals, Guides, and page changes are consistent with all applicable ES&H requirements.
- b. Interact with other Federal agencies to ensure that directives are consistent with Federal ES&H policy.
- c. Review facilities and activities to confirm that the expectations set by FEM are met.

When the OPI—

- d. For ES&H requirements for non-NNSA facilities, review and approve, or deny with reason, applications for exemptions from DOE directives (see DOE M 251.1-1A).
- e. For ES&H requirements for NNSA facilities, review and recommend to NNSA that it approve, or deny with reason, applications for exemptions from DOE directives (see DOE M 251.1-1A).

GC (including NNSA General Counsel) Responsibilities:

Provide advice and interpretation concerning legal aspects of the directives system. Review and comment on proposed Orders, Notices, Manuals, Guides, and page changes for legal sufficiency, including compliance with (1) rule-making procedures under the Administrative Procedure Act; (2) necessity requirements of Section 3174 of the National Defense Authorization Act of Fiscal Year 1997; and (3) notification provisions under the Congressional Review Act and duty to send directives to Congress where required under that Act.

MA Responsibilities:

Recommend to the COO that Department Policies, Orders, Notices, Manuals, Guides, and page changes be signed and issued in accordance with DOE O 251.1A and DOE M 251.1-1A.

**9.2.2.2 Technical Standards for Use within DOE**

Public Law (P.L.) 104-113, the National Technology Transfer and Advancement Act of 1995, requires Federal agencies to use voluntary consensus standards whenever possible. DOE Technical Standards are to be developed or used only if no appropriate non-DOE standard exists.

OPI Responsibilities:

Identify established consensus standards for use by DOE or document the need for a DOE Technical Standard, prepare draft DOE Technical Standards that are consistent with P.L. 104-113, coordinate them in accordance with directions from the DOE Technical Standards Program, ensure the consistency of proposed standards with existing adopted standards, and approve final DOE Technical Standards and send them to the DOE Technical Standards Manager for issuance.

PSO Responsibilities:

- a. Review and comment on proposed DOE Technical Standards.
- b. Recommend technical and cost-saving improvements, where appropriate.
- c. Provide staff to participate on focus groups or technical development teams.

- d. Ensure proposed DOE Technical Standards are consistent with program office missions.

FEM Responsibilities:

- a. Review and comment on proposed DOE Technical Standards.
- b. Recommend technical and cost-saving improvements, where appropriate.
- c. Provide staff to participate on focus groups or technical development teams.

EH Responsibilities:

- a. Manage the DOE Technical Standards Program.
- b. Appoint the DOE Standards Executive to represent DOE's interests on consensus standards-setting organizations and the Interagency Committee on Standards Policy.
- c. Perform DOE reporting requirements under Office of Management and Budget (OMB) Circular A-119.
- d. When not the OPI, review and comment on proposed DOE Technical Standards and recommend technical and cost-saving improvements, where appropriate.
- e. Provide staff to participate on focus groups or technical development teams to ensure a quality product is developed.
- f. Ensure proposed DOE Technical Standards are consistent with ES&H requirements.

**9.2.2.3 Rules**

DOE elements are responsible for compliance with all Federal rules, not just those promulgated by DOE. Many DOE organizations maintain expertise in and awareness of the rule-making activities of other Federal agencies. For example, EH provides assistance in understanding and implementing environmental rules and coordinates comments to proposed changes to environmental and Occupational Safety and Health Administration regulations. The Office of the Assistant Secretary for Environmental Management has similar responsibilities for Department of Transportation and Nuclear Regulatory Commission packaging requirements for transporting radioactive materials.

Secretary of Energy Responsibilities:

Approve Department ES&H rules.

PSO Responsibilities:

- a. Review and comment on proposed rules.



- b. Recommend technical and cost-saving improvements, where appropriate.
- c. Provide staff to participate on focus groups or technical development teams.

FEM Responsibilities:

- a. Review and comment on proposed rules.
- b. Recommend technical and cost-saving improvements, where appropriate.
- c. Provide staff to participate on focus groups or technical development teams.
- d. Determine what actions by the field element are necessary to implement the final rules.

EH Responsibilities:

- a. Prepare draft ES&H rules and associated guidance documents in accordance with the provisions of the Administrative Procedure Act and other generally applicable procedural requirements and policies and coordinate them with affected DOE organizations.
- b. Submit final draft rules to GC-1 for coordination with the Secretary of Energy, the OMB, and the Federal Register.
- c. Consult with procurement, review and assist in drafting proposed contract related clauses and guidance, and work with the appropriate Headquarters procurement offices to bring the proposals to an implementation stage through rule making or other action, as appropriate.
- d. Revise rules when necessary and interpret their technical requirements.
- e. Interact with other Federal agencies to ensure rules are consistent with Federal ES&H policies.

GC Responsibilities:

- a. Ensure that rules and Notices placed in the Federal Register are developed and issued in accordance with the Administrative Procedure Act and other applicable statutory requirements.
- b. Coordinate review of rules with OMB and notify Congress of the issuance of final rules under the Congressional Review Act.
- c. Ensure that the final rule package is legally correct and properly addresses all applicable statutes, Executive Orders, and regulatory requirements.
- d. Ensure that all notices and the final rule are in correct format for publication in the Federal Register and coordinate transmittal of the package to the Federal Register for publication.

- e. Provide regulatory interpretations as requested using the appropriate technical resources for support when the interpretation may involve technical considerations.
- f. Resolve all comments on rules received by reviewing organizations to ensure legal correctness.

#### **9.2.2.4 Contract performance expectations**

##### PSO Responsibilities:

Provide guidance to FEMs on expected performance, set goals and priorities, and allocate resources.

##### FEM Responsibilities:

- a. Prepare contracts that establish clear expectations and performance measures.
- b. Monitor contractor performance and assess whether performance expectations have been met.
- c. Approve annual submittal of performance measures, indicators, and objectives, as required by the integrated safety management system DEAR clause.

##### Contracting Officer Responsibilities:

- a. Approve and issue contracts that meet contract regulations and provide clear expectations and performance measures to contractors regarding work to be performed and the mission and safety requirements.
- b. Ensure contracts clearly delineate contractor responsibilities regarding subcontractors and suppliers.
- c. Implement funding allocations consistent with the program office's allocations of resources, and revise allocations as delegated.
- d. Act as a liaison between the contractor and Department staff regarding contract issues and performance expectations.
- e. Ensure that 48 CFR 970.5204-2 and 48 CFR 970.5223-1 (the ISM LAWS clause and the safety management system clause) are included in the contracts.

##### Deputy Administrators (NNSA) and/or Cognizant Secretarial Officers Responsibilities:

Develop contractor performance measures and criteria for emergency management in coordination with the operations/field office and the Director of Emergency Operations.

### **9.2.2.5 Organization FRA Documents**

Paragraph 7 addresses the need for lower-tier FRA documents to delineate the functions, responsibilities, and authorities within specific organizations and to ensure that the responsibilities and authorities defined in this Manual flow down to the individuals who do the work. The responsibilities for preparation of lower-tier FRA documents are defined below.

The level of detail in lower-tier FRA documents must be sufficient to ensure that the responsibilities for each of the specific functions assigned in this Manual and other directives are properly discharged.

#### PSO, EH, and FEM Responsibilities:

Prepare, approve, and implement FRA documents for each organization to delineate how the applicable responsibilities and authorities in this Manual are performed. Revise FRA documents within 90 days of the issuance of revision to this Manual and following organizational changes.

#### FEM Responsibilities:

Ensure that the responsibility, authority, and accountability for operation and maintenance of all DOE facilities are clearly defined, appropriately assigned, and executed. Revise FRA documents within 90 days of the issuance of revision to this Manual, and following organizational changes.

### **9.2.2.6 Approval, implementation, and maintenance of safety management system documentation**

An effective safety management system requires technically competent people with appropriate experience, knowledge, and training to review and approve safety management system descriptions (see paragraph 9.1.6.1). Safety management systems for a DOE facility are developed by the facility's contractor; reviewed by a carefully selected team of DOE employees; and based upon the team's recommendation, approved by the Contracting Officer.

#### Deputy Secretary Responsibilities:

Implement and maintain integrated safety management systems.

#### PSO and FEM Responsibilities:

Conduct line oversight of safety management systems to ensure effective implementation and maintenance.

#### FEM Responsibilities:

- a. Ensure that contractors describe and document their safety management systems.

- b. Ensure that contractor safety management systems are implemented and kept current.

Contracting Officer Responsibilities:

- a. Decide on the need for team review, and, if a team is needed, select members of the review team for specific applications and select the team leader from the approved list.
- b. Approve safety management systems and revisions thereto (48 CFR 970.5223-1(e)).
- c. Determine annually whether contractor safety management systems and systems requirements (i.e., safety management system descriptions, lists of applicable directives, and authorization agreements) are current, valid, and appropriately reflected in the implementation procedures.<sup>6</sup>

**9.2.3 Allocate Resources to Contractor**

For contractors to perform work at DOE sites, DOE must allocate resources for that work. Sufficient resources must be allocated to permit compliance with all safety requirements.

PSO and FEM Responsibilities:

- a. Prepare budget execution documents in accordance with DOE O 135.1, *Budget Execution—Funds Distribution and Control*, and DOE M 135.1-1, *Budget Execution Manual*, to allocate resources to contractors.
- b. Ensure funds and resources are appropriately used.

**9.2.4 Prioritize Tasks**

Work must be prioritized to ensure that DOE resources are most effectively used and that mission and safety expectations are met.

CSO Responsibilities:

Review the safety management system and advise the FEM regarding its ability to ensure that mission and safety expectations can be met within budget constraints (see DOE P 450.4, *Safety Management System Policy*, Guiding Principle 4, Balanced Priorities).

FEM Responsibilities:

- a. Ensure that the safety management system adequately prioritizes work to ensure that, when implemented, mission and safety expectations for the site are met within available budget and resources.
- b. Review and support development of expected performance objectives and related PSO goals and priorities.

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<sup>6</sup>Deputy Secretary Memo of September 28, 2000, "Realizing the Benefits of Integrated Safety Management."

### 9.3 Analyze Hazards

The hazards involved in any work activity must be identified, analyzed, and categorized so that appropriate safety standards and controls can be selected commensurate with the work to be performed. The system to identify, analyze, and categorize the hazards should also be tailored to the expected hazards for the facility/activity.

Hazard analyses are a very important component of safety analysis reports and other forms of documented safety analyses (DSAs) (see paragraph 9.4.3 for the review and approval function of these documents). Hazard analyses are also required by the Occupational Safety and Health Administration regulations and DOE regulations: Examples of the former include Health and Safety Plans (29 CFR 1910.120) and Chemical Hygiene Plans (29 CFR 1910.1450), while the latter include Nuclear Safety Management (10 CFR Part 830) and Chronic Beryllium Disease Prevention Program (10 CFR 850).

Hazards surveys are performed to identify and document emergency conditions that may occur at each facility. Hazards assessments are used to analyze potential events and evaluate potential consequences to workers, the public, and the environment. The hazards assessment provides the technical basis for the hazardous material program. The hazards surveys and hazards assessments are developed in accordance with the requirements of DOE O 151.1A, *Comprehensive Emergency Management System*.

#### 9.3.1 Identify and Analyze Hazards

10 CFR 830 requires DOE contractors to perform analyses and have them approved by DOE. Rules do not assign particular DOE organizations to be involved in this approval process. The responsibilities below are those in DOE G 421.X-X, *Implementation Guide for Use in Developing Documented Safety Analyses to Meet Subpart B of 10 CFR Part 830*, which has been issued for interim use and comment.

##### LPSO Responsibilities:

Monitor and assess the effectiveness of FEM oversight of contractor analysis of hazards associated with work at their facilities.

##### CSO Responsibilities:

For all NNSA facilities, the Deputy Administrator responsibilities pertain.

Approve, with EH concurrence, the methodology used to prepare the DSA for Hazard Category 1, 2, and 3 nuclear facilities, including the criteria for classifying nuclear safety structures, systems, and components, and document the basis for approval, whenever the contractor does not use a methodology from Table 2 of Appendix A to Subpart B of 10 CFR 830. If delegated to the FEM, concur in alternate methodologies.

Deputy Administrator (NNSA) Responsibilities:

Approve the methodology used to prepare the DSA for Hazard Category 1, 2, and 3 nuclear facilities, including the criteria for classifying nuclear safety structures, systems, and components, and document the basis for approval, whenever the contractor uses a methodology other than as described in Table 2 of Appendix A to Subpart B of 10 CFR 830. If the contractor uses an alternative methodology, transmit the contractor submittal to EH for review and comment. Resolve any disagreements with EH comments by referring them to the NNSA Administrator and the Deputy Secretary.

FEM Responsibilities:

- a. Ensure that the analysis provided by the contractor properly covers the hazards associated with the work, is consistent with its safety management system, and provides sufficient information for the selection of safety standards and controls, or, for GOGO facilities, supply such an analysis.
- b. Ensure that the hazard analyses for Hazard Category 1, 2, and 3 nuclear facilities meet the requirements of 10 CFR Part 830, Subpart B.
- c. Where this authority has been delegated for non-NNSA facilities, approve the methodology used to prepare the DSA for Hazard Category 1, 2, and 3 nuclear facilities, including the criteria for classifying nuclear safety structures, systems, and components, and document the basis for approval, whenever the contractor does not use a methodology from Table 2 of Appendix A to Subpart B of 10 CFR 830. Transmit the alternative methodologies to the CSO and EH for review and concurrence.
- d. Ensure that hazards surveys and hazards assessments for emergency planning purposes are adequately performed and documented in accordance with the requirements of DOE O 151.1A, *Comprehensive Emergency Management System*. Approve and forward approved hazards surveys and hazards assessments to the LPSO, CSO, PSO, and Director of Emergency Operations, as appropriate.

EH Responsibilities:

- a. As part of EH's independent oversight and assessment functions, review and comment on the hazard identification and hazard analysis in safety documentation.
- b. As part of EH's nuclear safety policy function, review and concur (or comment, if an NNSA facility is involved) in the methodology used to prepare the DSA, including the criteria for classifying nuclear safety structures, systems, and components, for Hazard Category 1, 2, and 3 nuclear facilities, whenever the contractor does not use a methodology from Table 2 of Appendix A to Subpart B of 10 CFR 830.

- c. Whenever a new alternative is accepted, prepare the guidance for the use and application of the methodology, issue the guidance per prescribed processes, and incorporate it into DOE-wide guidance on approved methodologies.

#### OA Responsibilities:

Conduct independent oversight of emergency management hazards survey and hazards assessment documentation and processes activities.

### **9.3.2 Categorize Facility/Activity Based on the Hazards**

Performance categorization against natural phenomena hazards are described in DOE-STD-1021-93, *Natural Phenomena Performance Hazards Categorization Guidelines For Structures, Systems, And Components*.

#### CSO Responsibilities:

- a. Approve final facility hazard categorization for nuclear facilities, where this authority has not been delegated.
- b. Ensure that the hazard categorization is performed consistent with 10 CFR 830.202(b)(3).

#### FEM Responsibilities:

- a. Concur (or approve, where this authority has been delegated) on facility/activity hazard categorization level based on (i) input from DOE line managers or contractors regarding the type and amounts of hazards and (ii) the requirements of 10 CFR 830.202(b)(3).
- b. For GOGO nuclear facilities, ensure the hazard categorization for the nuclear facility is performed in accordance with 10 CFR 830.202(b)(3) and, if not delegated approval authority, submit the hazard categorization to the CSO for approval.

#### EH Responsibilities:

Review and comment on the facility and activity hazard categorization in safety documentation as part of EH's independent oversight and assessment functions.

### **9.4 Develop and Implement Controls**

Based on an analysis of the work and the associated hazards of that work and the workplace, a contractor must develop controls to prevent or mitigate the hazards to ensure adequate protection of workers, the public, and the environment. Additionally, a contractor must implement and follow controls to ensure compliance with Federal, State, and local regulations and laws and those DOE directives included in contractual terms and conditions unless a specific exemption to these requirements is obtained. DOE reviews and approves nuclear safety rule plans, tailoring processes, authorization protocols, and other safety management documents that identify the controls,

processes, programs, and procedures needed for safety, and oversees their implementation. DOE also reviews and approves Technical Safety Requirements and other hazards controls for Hazard Category 1, 2, and 3 nuclear facilities.

#### **9.4.1 Identify Standards and Requirements**

DOE P 450.2A, *Identification, Implementation, And Compliance With Environment, Safety And Health Requirements*, describes the processes to be used to establish contractor requirements as well as DOE responsibilities. Three methods of identifying standards and requirements in contracts are included: Standards and Requirements Identification Documents, references to DOE Orders, and the Necessary and Sufficient process. It is the general responsibility of each DOE element to ensure that DOE responsibilities established by these processes are consistent with those in the applicable lower-tier FRA documents. (See also DOE P 450.3, *Authorizing Use of the Necessary and Sufficient Process for Standards-based Environment, Safety and Health Management*, and DOE M 450.3-1, *The Department of Energy Closure Process For Necessary And Sufficient Sets of Standards*.)

##### **9.4.1.1 ES&H site-/facility-specific requirements (Hazard Category 1)**

ES&H site/facility-specific requirements for incorporation into contracts and authorization agreements for Hazard Category 1 nuclear facilities are to be clearly defined.

##### CSO Responsibilities:

- a. Ensure that an authorization agreement is established between the contractor and DOE for Hazard Category 1 facilities.
- b. Approve (1) the specific requirements to be included in contracts, (2) authorization agreements, (3) safety documentation, and (4) authorization bases.

##### EH Responsibilities:

Review and comment on specific requirements to be included in contracts, authorizations agreements, safety documentation, and authorization bases.

##### FEM Responsibilities:

- a. Direct the contractor to propose site- or facility-specific standards tailored to the work and the hazards.
- b. Provide the above-mentioned standards to the CSO for approval in the authorization agreement and in the contract.
- c. Ensure that appropriate safety requirements in necessary functional areas are included in the contracts and in the authorization agreement.
- d. Cooperate with program personnel and other requirements personnel to identify requirements in the directives system applicable to a contract and provide the list of requirements to the contracting officer for inclusion in the contract.



Contracting Officer Responsibilities:

Incorporate approved standards into contract requirements.

**9.4.1.2 ES&H site-/facility-specific requirements (Hazard Category 2 and below)**

ES&H site-/facility-specific requirements for incorporation into contracts and authorization agreements for Hazard Category 2 and below nuclear facilities, accelerators, and non-nuclear facilities are to be clearly defined.

CSO Responsibilities:

- a. Ensure that an authorization agreement is established between the contractor and DOE for Hazard Category 2 facilities.
- b. The CSO may retain approval authority for this responsibility, or he/she may delegate it. Wherever authority is not delegated, review and approve (1) the proposed specific requirements to be included in the contracts; (2) authorization agreements; 3) safety documentation; and (4) the authorization bases for nuclear facilities categorized as Hazard Category 2 or below, accelerators, and non-nuclear facilities.

EH Responsibilities:

Perform independent oversight inspection, review, and comment on the authorization basis and safety basis documentation, and management systems used to develop and maintain these bases.

OA Responsibilities:

Perform independent oversight inspection, review and comment on site- and facility-specific emergency management requirements.

FEM Responsibilities:

- a. Direct the contractor to propose site- and facility-specific standards tailored to the work and the hazards.
- b. Provide the above documentation to the CSO and Headquarters program office for information or approval, unless delegated that authority.
- c. Determine whether an authorization agreement is required for particular Hazard Category 3 and below facilities based upon the complexity and hazards associated with the work, and ensure that it is agreed-upon between the contractor and DOE.
- d. Review and approve the specific requirements to be included in contracts, authorization agreements, safety documentation, and authorization bases where this authority has been delegated.

- e. Cooperate with program and other personnel to identify requirements in the directives system applicable to a contract and provide this list of requirements to the contracting officer for inclusion in the contract.

Contracting Officer Responsibilities:

Incorporate approved standards into contract requirements.

**9.4.1.3 Exemptions from DOE Directive Requirements (Other Than Rules)**

See DOE O 251.1A and DOE M 251.1-1A. In addition, see fire protection exemption and equivalency process specified in DOE O 420.1, *Facility Safety*.

**9.4.1.4 Exemptions from Requirements in 10 CFR Parts 830 and 835**

Exemptions from the requirements of 10 CFR Parts 830 and 835 are specifically authorized in 10 CFR Part 820, Subpart E. Individuals requesting and processing exemptions to these regulations should refer to the criteria and authorities in that regulation. In addition, DOE-STD-1083-95, *Requesting and Granting Exemptions to Nuclear Safety Rules*, provides guidance on requesting, reviewing, and granting exemptions to DOE nuclear safety rules.

Secretary of Energy Responsibilities:

Review appeals of decisions on exemption requests as requested or as appropriate in accordance with the provisions of 10 CFR Part 820, Subpart E.

CSO Responsibilities:

- a. Approve or deny requests for exemptions from the requirements of 10 CFR Part 830 as authorized by the provisions of 10 CFR Part 820, Subpart E. This authority may not be delegated.
- b. Review 10 CFR Part 835 exemption requests and provide recommendations on approval to EH.
- c. Coordinate reviews of proposed exemptions with EH and resolve any comments received.

FEM Responsibilities:

Review and provide recommendations to the CSO or EH on requests for exemptions to 10 CFR Parts 830 and 835.

EH Responsibilities:

- a. Review and comment on 10 CFR Part 830 exemption submittals.

- b. Approve or deny requests for exemptions from non-NNSA programs from the requirements of 10 CFR 835 as authorized by the provisions of 10 CFR 820, Subpart E. This authority may not be delegated.
- c. Review and recommend approval or denial of requests from NNSA programs from the requirements of 10 CFR 835 as authorized by the provisions of 10 CFR 820, Subpart E.
- e. Resolve any comments received on proposed exemptions to 10 CFR Parts 830 and 835.

#### GC Responsibilities:

Provide guidance or assistance on the legal sufficiency of the DOE basis for granting or denying an exemption when requested by a PSO or EH.

#### **9.4.1.5 Exemptions from external requirements**

Contractors and FEMs in coordination with the appropriate PSO may find it necessary to pursue exemptions from local, State, or other Federal agencies. Responsibilities and authorities for this function are to be included in the appropriate organization-specific FRA documents.

#### **9.4.1.6 Approval of Programs and Processes Required by Nuclear Safety Rules**

Nuclear safety requirements in 10 CFR Parts 830 and 835 call for DOE approval of specified plans, programs, and documents. Specifically, (1) Part 835, Occupational Radiation Program, requires contractors to develop Radiation Protection Programs (RPPs); (2) Part 830, Subpart A, Quality Assurance Requirements, requires contractors to develop Quality Assurance Programs (QAPs); (3) Part 830, Subpart B, Safety Basis Requirements, requires contractors to develop safety bases (including DSAs and Technical Safety Requirements), Unreviewed Safety Question (USQ) procedures, and, where applicable, preliminary DSAs. Functions, responsibilities, and authorities relating to safety bases are addressed in paragraphs 9.4.2 and 9.4.3. Functions, responsibilities, and authorities relating to QAPs are addressed in paragraph 9.5.3.

Guidance on RPPs is contained in DOE G 441-1.1, *Management and Administration of Radiation Protection Programs Guide for Use with Title 10, Code of Federal Regulations, Part 835, Occupational Radiation Program*. Guidance on QAPs is contained in DOE G 414.1-2, *Quality Assurance Management System Guide for Use with 10 CFR 830.120 and DOE O 414.1*. Guidance on safety bases is contained in DOE G 421.X, *Implementation Guide for Use in Developing Documented Safety Analyses to Meet Subpart B of 10 CFR Part 830*, and DOE G 423.X, *Implementation Guide for Use in Developing Technical Safety Requirements (TSRs)*. Guidance on USQ processes is contained in DOE G 424.X, *Implementation Guide for Use in Addressing Unreviewed Safety Question (USQ) Requirements*.

#### CSO Responsibilities:

Approve the following (this authority may be delegated):

- a. RPPs for DOE activities as required in 10 CFR Part 835.101;
- b. USQ procedures for Hazard Category 1, 2, and 3 nuclear facilities; and
- c. DSAs and preliminary DSAs, including the nuclear safety design criteria, where required by 10 CFR 830.206.

FEM Responsibilities:

- a. Direct the contractor to prepare RPPs, USQ procedures, and DSAs and preliminary DSAs in accordance with Parts 830 and 835. For GOGO facilities, prepare the RPPs, USQ procedures, and DSAs and preliminary DSAs in accordance with Parts 830 and 835.
- b. Review the RPPs, USQ procedures, and DSAs and preliminary DSAs prepared by the contractors for compliance with the requirements of 10 CFR Parts 830 and 835.
- c. Approve the RPPs, USQ procedures, and DSAs and preliminary DSAs using the provisions of Table 2 of Appendix A to subpart B of 10 CFR Part 830 for which approval authority has been delegated. Obtain EH review and concurrence if the provisions of safe harbor are not used.
- d. If not delegated approval authority, send recommendation for approval or disapproval to the PSO with concurrence or comments.
- e. Respond to PSO or EH comments.
- f. Transmit approval of RPPs, USQ procedures, and DSAs and preliminary DSAs from the PSO (or delegate) to contractors.
- g. Provide line management oversight and ensure contractor execution of plans, programs, and procedures to meet nuclear safety requirements.
- h. Approve—
  - (i) the nuclear safety design criteria selected for the preliminary DSAs for Hazard Category 1, 2, and 3 nuclear facilities if they are not consistent with DOE O 420.1, *Facility Safety*, as required by 10 CFR Part 830.206(b)(2) and
  - (ii) the methodology used to prepare DSAs when the contractor does not use a methodology for safety analysis contained in Table 2 to Appendix A of 10 CFR Part 830, and transmit the methodology and criteria to EH for review and concurrence (or comment, if a NNSA facility is involved).

EH Responsibilities:

- a. As part of EH's independent oversight function, review and comment on RPPs, USQ procedures, and DSAs and preliminary DSAs.

- b. As part of EH's nuclear safety policy function, review and concur (or comment, if an NNSA facility is involved) in—
  - (i) the nuclear safety design criteria selected for preliminary DSAs for Hazard Category 1, 2, and 3 nuclear facilities if they are not consistent with DOE O 420.1, *Facility Safety*, as required by 10 CFR Part 830.206(b)(1); and
  - (ii) a methodology for safety analysis contained in Table 2 of Appendix A to Subpart B of 10 CFR 830 for the preparation of a DSA. Whenever a new alternative is accepted, prepare the guidance for the use and application of the methodology, issue the guidance per prescribed processes, and incorporate it into DOE-wide guidance on approved DSA methodologies.

OA Responsibilities:

Perform independent oversight inspection, and review and comment on the adequacy of emergency management controls used to prevent and mitigate the impact of emergencies to workers, the public, and the environment.

**9.4.2 Identify Controls to Prevent and Mitigate Hazards**

Controls identified must appropriately address hazards to the worker, public, and the environment from either nuclear or non-nuclear materials and operations. This effort would include both DOE and external controls (e.g., permits).

EH Responsibilities:

Perform independent oversight inspection, and review and comment on the adequacy of controls used to prevent and mitigate hazards.

OA Responsibilities:

Conduct independent oversight of emergency management activities.

**9.4.2.1 Hazard Category 1 Nuclear Facilities**

CSO Responsibilities:

- a. Ensure the adequacy of controls for the prevention and mitigation of hazards and ensure sufficient funding for their implementation.
- b. Provide line management oversight of the FEM ES&H program.
- c. Approve the Technical Safety Requirements.

FEM Responsibilities:

- a. Direct the contractor to prepare Technical Safety Requirements in accordance with 10 CFR 830.205 and any other hazard controls necessary for the prevention and mitigation of

adverse consequences from hazards. Review the adequacy of the controls and their documentation.

- b. Provide line management oversight and ensure the implementation of hazards mitigation programs and controls.
- c. For GOGO nuclear facilities, prepare the Technical Safety Requirements in accordance with 10 CFR 830.205 and submit them to the CSO for approval.

#### **9.4.2.2 Hazard Category 2 and 3 and below nuclear facilities and non-nuclear facilities**

##### CSO Responsibilities:

- a. Approve the Technical Safety Requirements and other hazards controls for Hazard Category 2 and 3 nuclear facilities, or delegate to the FEM.
- b. Ensure the adequacy of the Technical Safety Requirements and other hazards controls for the prevention and mitigation of adverse consequences from hazards and ensure sufficient funding for the implementation of the controls for Hazard Category 2 and 3 nuclear facilities.
- c. Review documentation for controls for other facilities identified by FEM (e.g., accelerators and other major systems).

##### FEM Responsibilities:

- a. Direct the contractor to prepare documentation for controls for the prevention and mitigation of hazards (including Technical Safety Requirements for Hazard Category 2 and 3 nuclear facilities). Review the adequacy of the controls and their documentation.
- b. Provide line management oversight and ensure the implementation of hazards mitigation programs and controls. For GOGO nuclear facilities, prepare the Technical Safety Requirements in accordance with 10 CFR 830.205 and submit them to the CSO for approval where approval has not been delegated.
- c. Identify any other facilities for which hazard controls must be identified and documentation prepared (e.g., accelerators and major systems.)

#### **9.4.3 Establish Safety Bases and Authorization Bases**

Details of safety documentation requirements are in 10 CFR Part 830, Subpart B; DOE 5480.22, *Technical Safety Requirements*; and DOE 5480.23, *Nuclear Safety Analysis Reports*.

For Hazard Category 1, 2, and 3 nuclear facilities, the safety basis must meet the requirements in 10 CFR Part 830, Subpart B.

**9.4.3.1 Safety basis and authorization basis documentation for Hazard Category 1 nuclear facilities**CSO Responsibilities:

- a. Approve the authorization basis and safety basis documentation. The CSO may delegate this authority to a Headquarters program line manager or to the FEM.
- b. Ensure the safety basis for the nuclear facility is adequate and complies with the safety basis requirements of 10 CFR Part 830.
- c. Ensure the timely review of all safety basis documents. Prepare a safety evaluation report concerning the safety basis of the facility where authority has not been delegated.
- d. Provide a quarterly status report to EH-1 regarding the status of the safety basis and contacts for members of the public to obtain a copy of the safety basis and related documents for a facility.

FEM Responsibilities:

Direct preparation of the authorization basis and safety basis documentation (including the safety basis) and oversee implementation by the contractor. Approve when delegated the authority by the CSO. Prepare a safety evaluation report concerning the safety basis of the facility where authority has been delegated. For GOGO nuclear facilities, ensure the preparation of the authorization basis and safety basis documentation (including the safety basis for Hazard Category 2 and 3 nuclear facilities) and, if not delegated approval authority, submit the documentation to the CSO for approval.

EH Responsibilities:

- a. Review and comment on the authorization basis and safety basis documentation, and on management systems to develop and maintain authorization bases as part of EH's independent oversight function.
- b. Maintain a public list on the Internet that provides the status of the safety basis and, to the extent practicable, provides information on how to obtain a copy of the safety basis and related documents for a facility.

**9.4.3.2 Safety basis and authorization basis documentation for Hazard Category 2 and below nuclear facilities and accelerators<sup>7</sup>**CSO Responsibilities:

- a. Approve the safety basis and authorization basis documentation (including the safety basis) or delegate this authority to the FEM or Headquarters program line manager.

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<sup>7</sup>Accelerators not excluded under paragraph 3c of DOE O 420.2, *Safety of Accelerator Facilities*.

- b. Ensure the safety bases for Hazard Category 2 or 3 nuclear facilities are adequate and comply with the safety basis requirements of 10 CFR Part 830.
- c. Ensure the timely review of all safety basis documents for Hazard Category 2 and 3 nuclear facilities. Prepare a safety evaluation report concerning the safety basis of the facility where this authority has not been delegated.
- d. Provide a quarterly status report to EH-1 regarding the status of the safety basis for Hazard Category 2 and 3 nuclear facilities and contacts for members of the public to obtain a copies of the safety basis and related documents.

FEM Responsibilities:

- a. Direct preparation of the authorization basis and safety basis documentation (including the safety basis); approve these documents, except where the authority to do so has not been delegated, and oversee implementation by the contractor. Where authority has been delegated, prepare a safety evaluation report concerning the safety basis of the facility.
- b. For GOGO nuclear facilities, prepare the authorization basis and associated safety documentation (including the safety basis for Hazard Category 2 and 3 nuclear facilities)and, if not delegated approval authority, submit the documentation to the CSO for approval.

EH Responsibilities:

- a. Perform independent oversight inspections, review and comment on authorization basis and safety basis documentation and management systems.
- b. Maintain a public list on the Internet that provides the status of the safety basis for Hazard Category 2 and 3 nuclear facilities and, to the extent practicable, provides information on how to obtain a copy of the safety basis and related documents for a facility.

**9.4.3.3 Authorization protocols**

Authorization protocols encompass those processes that will be used to communicate acceptance of the contractor's integrated plans for hazardous work. Such protocols are expected to range from pre-performance review and approval of detailed safety-related terms and conditions for performing work (e.g., authorization agreement) to less rigorous line management oversight with post-performance assessment of the contractor's work.

Authorization agreements specify contractually binding commitments relating to design, operating, and administrative controls that govern the conduct of an activity or the operation of a facility. Although various mechanisms (e.g., Final Safety Analysis Reports) contain adequate information to authorize operation, some facility- or project-level activities may be of sufficiently high interest to DOE management to warrant a specific authorization agreement. The extent of documentation and the level of authorization for an authorization agreement must be tailored to the complexity of and hazards associated with the work.



CSO Responsibilities:

Ensure systems are in place for the development and implementation and maintenance of appropriate authorization protocols, including a protocol for assessment support to the FEM.

Head of Contracting Activities Responsibilities:

- a. Determine appropriate protocol based on work and hazard.
- b. Append approved authorization agreement to or modify the affected contract to contain its provisions.
- c. Establish requirements to ensure that authorization agreements are maintained up-to-date.

EH Responsibilities:

Review and comment on the authorization agreements as part of EH's independent oversight function.

**9.4.4 Implement Controls**

In addition to exercise of the controls established above, the safe operation of many DOE facilities involves special processes that require specific control mechanisms. These controls are often unique to each facility and generally are sufficiently diverse among DOE sites that they are best addressed in detail in organizational FRA documents, rather than here. Examples of such special processes are those involving aviation, explosives safety, and nuclear criticality. Directives containing required controls for these processes are included in Appendix A, and must be considered in organizational FRA documents wherever applicable.

For nuclear explosives operations, all requirements in DOE O 452 must be met. For Hazard Category 1, 2, and 3 nuclear facilities, the criteria for Technical Safety Requirements in 10 CFR 830.205 and the requirements for USQs in 10 CFR 830.203 must be met.

FEM Responsibilities:

Monitor the proper implementation of controls, including contractor processes for USQs and configuration management and compliance with the Technical Safety Requirements.

CSO Responsibilities:

- a. Monitor the FEM line oversight of the contractor's controls processes.

- b. Approve the contractors' USQ process for Hazard Category 1, 2, and 3 nuclear facilities, or delegate authority to FEM.

EH Responsibilities:

As part of EH's independent oversight function, review and comment on how the controls are implemented.

OA Responsibilities:

Conduct independent oversight on how emergency management controls are implemented.

## **9.5 Perform Work**

The safety of those performing work is ultimately in the hands of the workers themselves. Each and every aspect of the preparation and planning for that work must be performed in a manner that ensures the worker has all materials, training, equipment, supervision, and technical support necessary to complete the assigned task successfully, safely, and efficiently. No activity should begin, or any facility be started, unless the consequences of operation to the workers, public, and environment are appreciated and responses to contingencies planned, with sufficient means present of proceeding from any reasonably foreseeable state of operation towards safe shutdown.

Although at GOCO facilities DOE personnel do not directly perform the work, DOE must be familiar with the conditions under which work is performed. Primary methods include appropriate levels of readiness review, direct observation of contractor operations, and monitoring for significant events, followed by analysis to understand impacts on agreed-to conditions of operation and performance measures. DOE reserves the right to approve operations for certain categories of hazardous activities prior to startup. Less hazardous operations are approved through contract terms and conditions and an assurance that the contractor has an appropriate infrastructure for safe operations.

DOE has a vital role in assessing the safe conduct of work, a role that stems from its unique responsibilities as owners of the facilities and trustees of the Federal and public interests. DOE has responsibility to assess contract compliance. DOE, like the contractor, must feel confident that all agreements are being fulfilled and retains at all times the authority to stop work should it identify violations of the agreement that significantly diminish the safety of workers, the public, or the environment. To ensure the safe conduct of work and continuous improvement, DOE must maintain the competence of those personnel who perform and assess the work.

All DOE Element Responsibilities:

Each PSO and field element organization is responsible for implementing a Federal Employee Occupational Safety and Health (FEOSH) program for its DOE employees.

EH Responsibilities:

- a. Provide policy, guidance and technical assistance to the PSO and field element organization FEOSH programs, when requested.
- b. Conduct independent ES&H oversight of the PSO and field element programs (29 CFR, 1960.26, Conduct of Inspections).
- c. Collect information and provide annual reports to the Departments of Labor and Transportation.

OA Responsibilities:

Conduct independent oversight of emergency management activities.

**9.5.1 Confirm Readiness**PSO Responsibilities:

Shut down work if a clear and present safety danger exists.

EH Responsibilities:

Recommend shut down of work to the PSO if a clear and present safety danger exists, and notify the LPSO.

FEM Responsibilities:

Shut down work if a clear and present safety danger exists and promptly notify the PSO and EH.

Facility Representative Responsibilities:

Maintain day-to-day operational oversight of the contractor's activities and report potential or existing dangers to DOE line management.

**9.5.1.1 Readiness Reviews**

Readiness reviews provide an independent confirmation of readiness to start or restart operations. Readiness reviews include Operational Readiness Reviews (ORRs) and readiness assessments (RAs).

FEM Responsibilities:

- a. Ensure that ORRs and RAs are conducted by a review team in accordance with DOE O 425.1B, *Startup and Restart of Nuclear Facilities*.
- b. Require that contractors prepare Startup Notification Reports. Review and approve each Startup Notification Report in accordance with DOE O 425.1B.

EH Responsibilities:

As part of EH's independent oversight function, review and comment on readiness reviews.

**9.5.1.2 Startup authorization for nuclear facilities**

The requirements for startup authorization are contained in DOE O 425.1B, paragraph 4a(3). Guidance on delegation of startup authority for nuclear facilities is outlined in Table 1 of DOE-STD-3006-2000, *Planning and Conduct of Operational Readiness Reviews*.

**9.5.1.3 Startup authorization for non-nuclear facilities**

The requirements are the same as for Hazard Category 3 nuclear facilities, in that an RA (as described in DOE O 425.1B, paragraph 4a(2)) may be performed instead of an ORR. A graded approach should be used for very low hazard facilities such as office buildings.

FEM Responsibilities:

Determine the appropriate level of readiness necessary for the startup of non-nuclear facilities and ensure that it has been attained.

**9.5.2 Perform Work Safely**

Although each DOE employee is responsible for ensuring that work he or she does or directs others to do is performed safely, the DOE safety management system must provide optimum conditions for DOE employees to accept and meet that responsibility. The safety management system must be designed to ensure that equipment and facilities are in good repair and are properly functioning, processes are in place for safely conducting operations, and there is appropriate day-to-day operational oversight of contractor activities.

LPSO/CSO Responsibilities:

Ensure implementation of safety management systems, Facility Representative programs, delegated functions to the field elements, and performance measures to ensure adequate protection of the worker, the public, and the environment, and that adequate resources are allocated. (See DOE P 450.5, *Line Environment, Safety And Health Oversight*.)

Departmental Representative to the Defense Nuclear Facilities Safety Board (DNFSB)  
Responsibilities:

Guide Department-wide program implementation and improvement for the Facility Representative Program.

FEM Responsibilities:

- a. Ensure contracts are properly executed.
- b. Ensure contractors implement worker, public, environment, and facility protection programs.
- c. Ensure that the safety management system is properly implemented.
- d. Implement site/field element strategic plans.
- e. Perform line management oversight of contractors' worker, public, environment, and facility protection programs.
- f. Maintain day-to-day operational oversight of contractor activities at applicable facilities through DOE Facility Representatives.

EH Responsibilities:

- a. Provide guidance and assist in the identification of DOE requirements.
- b. As part of EH's independent oversight function, review and comment on how safely the work is being performed.

OA Responsibilities:

Conduct independent oversight of how safely emergency management activities (particularly emergency response) is performed.

### **9.5.3 Quality Assurance**

The Assistant Secretary for Environment, Safety and Health is responsible for quality assurance policy and assessment of policy implementation. The secretarial officers implement QAPs and ensure that adequate resources are allocated. Field organizations execute QAPs to ensure worker health and safety, product/service quality, and protection of the public and the environment.

Deputy Secretary Responsibilities:

Serve as the Departmental focal point for quality assurance issues and provide leadership for quality assurance implementation.

Secretarial Officer Responsibilities:

Ensure implementation of QAPs, continuous improvement, and provision of adequate resources to achieve quality.

CSO Responsibilities:

- a. Develop and approve a QAP governing the work of their organization.
- b. Review and concur with field element QAP.
- c. Review and approve contractor QAPs or delegate this authority to the field element manager.

EH Responsibilities:

Ensure promulgation of quality assurance policy, evaluate and oversee the QAP, and coordinate quality assurance policy internal and external to DOE.

FEM Responsibilities:

- a. Review and, where delegated authority to do so, approve contractors' QAPs, and ensure QAPs for nuclear facilities meet the requirements of 10 CFR 830.
- b. Ensure that contractors implement QAPs.
- c. Ensure that the contractor's QAPs are integrated with the contractor's safety management programs.
- d. For GOGO facilities, prepare the QAP plan.

**9.6 Collect Feedback and Pursue Improvement**

It is preferable to detect and avoid problems before they appear than to deal with the consequences of those problems afterward; if a source of error is discovered, it is clearly necessary to discover the origin of the error and avoid future occurrences of that or similar errors. The effort to detect and study current and potential problems should not be an occasional activity of an organization, engaged in only when necessary to counter a problem, but should be an integral part of the management system. In brief, the management system should contain processes that continuously improve its operations' safety, quality of outcome, and efficiency.

The general feedback and improvement process consists of the following (See "Implementation Plan for Defense Nuclear Facilities Safety Board Recommendation 98-1," dated March 10, 1999.).

- a. Identify issues. Feedback information is collected from a variety of sources, including management self-assessments, line management oversight, independent oversight, and external oversight. Assessments, appraisals, analyses, evaluations, reviews, and other

feedback mechanisms provide clear, factually accurate information, issues, and areas for improvement.

- b. Evaluate issues. Cognizant line managers evaluate identified issues and determine appropriate corrective actions, if any, including plans, schedules, and relative priorities compared to other ongoing safety improvements. Dispositions include cause identification, actions to address the immediate issue, actions to prevent recurrence, and lessons learned for broader application.
- c. Resolve issues. Cognizant line managers implement corrective actions to resolve issues. Implementation status is tracked and reported on to ensure timely and adequate resolution.
- d. Close issues. Cognizant line managers complete corrective actions and verify completion. Issues are closed upon review indicating that the original issue has been effectively resolved by the actions taken.

### **9.6.1 Generation, Collection, and Dissemination of Information**

For information on sources and methods of discovering, transmitting and applying lessons learned, consult the lessons learned web site, <http://www.tis.eh.doe.gov/II/>, or the Integrated Safety Management web site, <http://www.tis.eh.doe.gov/ism/>.

#### **9.6.1.1 Lessons Learned Program**

##### PSO Responsibilities:

- a. Implement a lessons-learned program to identify and share information within and outside the office about both adverse and good practices and generic issues associated with such practices. The program should include analysis and trending of events, and the results should be disseminated to DOE organizations that may benefit from the knowledge gained. Ensure that lessons learned are used to improve the performance of the programs under the office's direction.
- b. Collect information for use in this program from performance assessments of contractor and field element operations.
- c. Participate in lessons learned programs to improve internal organizational lessons learned processes.

##### FEM Responsibilities:

- a. Direct contractors to develop and implement a lessons learned program. The program should include analysis and trending of events.
- b. Participate in DOE-wide sharing of lessons learned.
- c. Monitor and assess contractor's lessons learned program.

- d. Participate in DOE lessons learned programs to improve internal organizational lessons learned processes.

EH Responsibilities:

- a. Develop and implement the DOE corporate lessons learned program in coordination with PSO, FEM, contractors, and industry.
- b. Support the analysis and dissemination of lessons learned information across the DOE complex.
- c. Develop methodologies and other tools for lessons learned reporting and analysis. Actively seek feedback for continuous improvement of lessons learned identification, analysis, and dissemination and upgrade requirements and guidance.

**9.6.1.2 Occurrence Reporting and Processing System (ORPS)**

SO Responsibilities:

Delegate authority and assign responsibilities for implementing occurrence reporting; review and approve the facility/site implementation procedure; ensure that ORPS requirements are included in appropriate contracts; establish agreements with FEMs; review occurrence reports for indications of deteriorating or poor performance; and approve occurrence reports, including proposed corrective actions, or delegate this authority.

Program Manager Responsibilities:

Approve ORPS reports, where this authority has been delegated to the program manager. (See DOE M 232.1-1A, 4.5, *Occurrence Reporting and Processing of Operations Information*.)

FEM Responsibilities:

- a. Direct contractors to report occurrences on ORPS. Review and approve reports, including proposed corrective actions.
- b. Review ORPS reports from all sites to detect potential improvements and means of averting occurrences.
- c. If approval authority for off-normal and unusual occurrence reports has been delegated to the FEM, it may be further delegated to the level considered appropriate by the FEM.

EH Responsibilities:

- a. Develop, maintain, and implement ORPS. Prepare and disseminate information obtained from analysis of this information.



- b. Actively seek feedback for continuous improvement of ORPS and upgrade requirements as appropriate.

#### **9.6.1.3 ES&H reporting requirements (occupational safety and health, environmental, radiological)**

##### LPSO/CSO Responsibilities:

Oversee implementation of ES&H reporting requirements.

##### FEM Responsibilities:

Oversee implementation of ES&H reporting at the site.

##### EH Responsibilities:

- a. Develop, maintain, and implement a system for ES&H reporting requirements, in accordance with 48 CFR 970.5203-2. Prepare and disseminate information obtained from the analysis of this information.
- b. Oversee ES&H performance and identify needed improvements to PSO, NNSA Administrator, FEMs, and contractors as appropriate.

#### **9.6.1.4 Assessments**

##### All DOE Element Responsibilities:

- a. Assess their own organizations to identify areas in which continuous improvement in the safety of DOE operations can be realized. Assign responsibility within the element for establishing criteria for such assessments and for conducting them.
- b. Examine the findings of both internal and external assessments of their element to identify root causes, trends, and necessary corrective actions within the responsibility of their element.
- c. Submit all assessment findings and their corrective actions to the process implementing paragraph 9.6.2, Make Changes to Improve.
- d. Ensure that all currently applicable safety requirements are captured in the organization's FRA document, and are consistent with other FRA documents of other organizations with which there are interfaces.

##### CSO and FEM Responsibilities:

As part of overall issue management, review the findings of assessments to evaluate their safety significance and ensure that appropriate priorities and resources are assigned to corrective actions. Where this review finds insufficient safety significance to justify corrective efforts, report the results of that review to the assessing organization.

EH Responsibilities:

- a. The EH Office of Independent Environment, Safety and Health Oversight conducts independent oversight assessments of the DOE ES&H policies and programs, including Integrated Safety Management. A formal report of the assessment is submitted to the Program Secretarial Office and cognizant line manager (see paragraph 9.6.3.2).
- b. Perform environmental audits to assess compliance with Executive Order 13148, and prepare annual reports to the Administrator of the EPA on its implementation.

OA Responsibilities:

Conduct independent oversight of emergency management policies, programs, and activities. A formal report of the appraisal is submitted to the Program Secretarial Office and cognizant line manager (see paragraph 9.6.3.3).

**9.6.1.5 Accident Investigations**

Accident investigations are performed as part of EH's independent oversight function. The responsibilities and procedures for accident investigations are covered in detail in DOE O 225.1A, *Accident Investigations*. In the event of a serious accident that results in life-threatening injuries or major environmental contamination, the appropriate PSOs are to meet with the Secretary, Deputy Secretary, and cognizant Under Secretary to thoroughly review the causes of the event, corrective action plans (CAPs), and the effectiveness of the integrated safety management at the site at which the event occurred.

**9.6.1.6 Reporting to External Agencies**

EH Responsibilities

Reports to external agencies for which EH is responsible include—

- a. seismic reports under Executive Order 12941;
- b. dam safety reports under Public Law 104-303, the Water Resources Development Act of 1996;
- c. annual National Emissions Standards Hazardous Air Pollutant Report;
- d. pollution prevention and abatement plans; and
- e. annual summary of occupational injuries and illnesses.

## 9.6.2 Make Changes to Improve

### All DOE Element Responsibilities:

All DOE elements are accountable for becoming and remaining cognizant of all relevant sources of information bearing upon their activities; i.e., for maintaining contact with other organizations and facilities that have similar activities, both within and external to DOE, and from whom best current practices can be learned. (See paragraph 9.6.1.1, Lessons Learned Program.)

- a. Continuously improve the efficiency and quality of operations; develop, implement, and track corrective actions to profit from prior experience and the lessons learned.
- b. Develop and maintain a process to ensure that corrective actions are planned and pursued to completion and adequately correct the root causes of the conditions that prompted them.
- c. Develop and maintain a process to ensure that information from various feedback sources are evaluated in an integrated manner and corrective actions are prioritized based upon importance.<sup>8</sup>

### 9.6.2.1 Corrective Actions

The Corrective Action Program is outlined in the DOE “Implementation Plan for Defense Nuclear Facilities Safety Board Recommendation 98-1,” dated March 10, 1999 (see paragraph 9.6). The purpose of this program is to define a clear, comprehensive, and systematic process to address and resolve ES&H issues identified by the EH Office of Independent Environment, Safety and Health Oversight and emergency management issues identified by the Office of Independent Oversight and Performance Assurance. The EH Office of Independent Environment, Safety and Health Oversight monitors program implementation to include sponsorship of a DOE Corrective Action Management Team comprised of DOE Headquarters, program secretarial office and field office representatives; and informs the Deputy Secretary of the corrective action program status.

Deputy Secretary Responsibilities: Settle cross-organizational disputes regarding resolution of safety issues identified by the EH Office of Independent Environment, Safety and Health Oversight and emergency management issues identified by the Office of Independent Oversight and Performance Assurance.

### PSO Responsibilities:

- a. Approve CAPs within 60 days (30 calendar days for OA assessment reports) of the issuance of the formal, independent oversight assessment report.

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<sup>8</sup>Deputy Secretary Memo, September 28, 2000, “Realizing the Benefits of Integrated Safety Management.”

- b. Provide an opportunity for the Department's Chief Operating Officer or delegate to be briefed by the FEM, the Office of Independent Environment, Safety and Health Oversight, and the Assistant Secretary for Environment, Safety and Health on the related issues, the CAP, and any associated resource issues.
- c. Resolve identified cross-organizational disputes, such as those related to the timeliness or adequacy of CAPs or their implementation. If unsatisfied with responsible line management's resolution, elevate the dispute to the Deputy Secretary.

FEM Responsibilities:

- a. Ensure that duly authorized independent oversight personnel have unfettered access to information and facilities, consistent with safety and security requirements.
- b. Assign a cognizant line manager to prepare a CAP to address the issues raised in formal independent oversight assessment reports.
- c. If the Office of Independent Environment, Safety and Health Oversight provides comments on an approved CAP, determine whether the CAP needs to be revised to address those comments, and revise the CAP appropriately.
- d. Implement the CAP and update the status of corrective actions in the DOE Corrective Action Tracking System (CATS).
- e. Coordinate with the field and Headquarters DOE elements to ensure that all closed corrective actions have been verified by persons with sufficient independence from those who performed the work described in the CAP.

EH Responsibilities (Office of Independent Environment, Safety and Health Oversight):

- a. Conduct independent oversight on the effectiveness and efficiency of ES&H policies and programs throughout the DOE complex; report to DOE management and external stakeholders on the results of independent oversight assessments; and monitor corrective actions to ensure resolution of identified safety issues.
- b. Submit formal assessment reports simultaneously to the applicable FEMs, cognizant line manager, and PSO.
- c. Review CAPs to resolve these safety issues within 30 days of their approval by the PSO, and, if a conclusion is reached that a CAP does not provide timely or adequate corrective actions for all of the identified safety issues, provide comments and their bases to the FEM and PSO/Deputy Administrator.

- d. Identify and describe concerns related to corrective actions, such as timeliness or adequacy of CAPs or their implementation, to the cognizant line manager. If unsatisfied with the line management resolution, elevate the dispute to the Deputy Secretary. Input identified safety issues into the CATS database, monitor the corrective action progress, and report to the Deputy Secretary and DOE Headquarters and field management on the status of the CAP outlined in the CATS on a quarterly basis.

OA Responsibilities: Conduct independent oversight of emergency management activities.

- a. Conduct independent oversight on the effectiveness and efficiency of emergency management policies and programs throughout the DOE complex; report to DOE management and external stakeholders on the results of independent oversight assessments; and monitor corrective actions to ensure resolution of identified emergency management issues.
- b. Submit formal assessment reports simultaneously to the applicable FEMs, CSO, Office of Security and Emergency Operations, and NNSA (when applicable).
- c. Consistent with DOE O 470.2A, review preliminary, interim, and final CAPs to resolve these emergency management issues and, if a conclusion is reached that a CAP does not provide timely or adequate corrective actions for all of the identified safety issues, provide comments and their bases to the FEM, CSO, Office of Security and Emergency Operations, and NNSA (when applicable).
- d. Identify and describe concerns related to corrective actions, such as timeliness or adequacy of CAPs or their implementation, to the FEM, CSO, Office of Security and Emergency Operations, and NNSA (when applicable). If unsatisfied with the line management resolution, elevate the dispute to the Deputy Secretary. Input identified emergency management issues into the CATS database, monitor the corrective action progress, and periodically report to the Deputy Secretary and DOE Headquarters and field management on the status of the CAP outlined in the CATS.

### **9.6.3 Oversight and Enforcement**

#### **9.6.3.1 Line management oversight**

CSO Responsibilities:

Monitor field element and contractor performance through the review of information provided by the field elements, EH, OA and external organizations. When appropriate, participate in field element appraisals. Conduct on-site reviews of field element performance, including verification of their appraisals of the contractor. Perform for-cause reviews, as necessary.

FEM Responsibilities:

- a. Perform management assessment of contractors (and GOGO operations) to evaluate their success in doing work safely.
- b. Appraise performance of the contractor (and GOGO operations) against formally established ES&H and emergency management performance measures and other ES&H and emergency management performance indicators, and take appropriate action.

EH Responsibilities (EH-2, Office of Independent ES&H Oversight): Evaluate the effectiveness of line management's oversight.

OA Responsibilities: Evaluate the effectiveness of line management's oversight of emergency management activities.

**9.6.3.2 EH independent ES&H oversight**

The Office of the Deputy Assistant Secretary for Independent Environment, Safety and Health Oversight (EH-2) conducts independent ES&H oversight activities and provides credible, objective, value-added information and analysis on the effectiveness and trends of the Department's ES&H policies and programs, including Integrated Safety Management to DOE management, Congress, and the public. In addition, EH-2 informs DOE management and stakeholders, as appropriate, of current and probable future ES&H issues that can affect public, worker, and environmental protection. Independent oversight activities include safety management and authorization basis evaluations, investigations of serious accidents, inspections, focus reviews, and special investigations and studies. EH-2 also monitors the timeliness and adequacy of line management CAPs for all safety issues identified during the conduct of independent oversight activities. EH-2 may elevate any disputes with DOE managers concerning the corrective actions to higher levels of management up to the Secretary, if necessary. The Office of Independent Environment, Safety and Health Oversight is responsible for the development of evaluation methods and technologies; develops and maintains DOE accident investigation policies, procedures, standards, and guidelines; and oversees their implementation.

Deputy Secretary Responsibilities:

Settle cross-organizational disputes regarding resolution of safety issues identified by EH independent oversight.

PSO Responsibilities:

- a. Approve CAPs within 60 days of the issuance of the formal independent oversight assessment report.
- b. Provide an opportunity for the Department's Chief Operating Officer or delegate to be briefed by the FEM, the Office of Independent ES&H Oversight, and the Assistant Secretary for Environment, Safety and Health on the related issues, the CAP, and any associated resource issues.

- c. Resolve identified cross-organizational disputes, such as those related to the timeliness or adequacy of CAPs or their implementation. If unsatisfied with responsible line management's resolution, elevate the dispute to the Deputy Secretary.

FEM Responsibilities:

- a. Ensure that duly authorized independent oversight personnel have unfettered access to information and facilities, consistent with safety and security requirements.
- b. Assign a cognizant line manager to prepare a CAP to address the issues raised in formal independent oversight assessment reports.
- c. If the Office of Independent ES&H Oversight provides comments on a CAP, determine whether the CAP needs to be revised to address those comments, and revise the CAP appropriately.
- d. Implement the CAP.
- e. Coordinate with the field and Headquarters DOE elements to ensure that all closed corrective actions have been verified by persons with sufficient independence from those who performed the work described in the CAP.

EH Responsibilities (EH-2, Office of Independent ES&H Oversight):

- a. Conduct independent assessments of safety management and authorization basis processes and products at Departmental sites in accordance with established protocols to assess success of the DOE safety management system, the Readiness Review process, CAPs, and supporting programs for doing work safely.
- b. Submit formal assessment reports simultaneously to the applicable FEMs, cognizant line manager and PSO.
- c. Review CAPs within 30 days of their approval by the PSO, and, if a conclusion is reached that a CAP does not provide timely or adequate corrective actions for all of the identified safety issues, provide comments and their bases to the FEM and PSO.
- d. Identify and describe concerns related to corrective actions, such as timeliness or adequacy of CAPs or their implementation, to the cognizant line manager. If unsatisfied with the line management resolution, elevate the dispute to the Deputy Secretary.

**9.6.3.3 OA Independent Emergency Management Oversight:**

The Office of Independent Oversight and Performance Assurance(OA) conducts a program of independent evaluations and assessments focused on the DOE emergency management system and on sites, operations, and transportation activities with significant quantities of special nuclear material and other hazards. OA activities include, emergency management program reviews (including hazards survey and hazards assessment evaluations), exercise evaluations, focused reviews, and

special studies. In so doing, the Office provides value to senior management and promotes continuous improvement by ensuring that DOE senior management has an accurate picture of overall effectiveness for DOE emergency management policy and program implementation and by performing independent oversight that promotes effective emergency management programs. The results of these independent evaluations are provided to the Office of the Secretary of Energy; to senior management responsible for program policy, guidance and implementation; and to others as may be directed. OA also monitors the timeliness and adequacy of line management CAPs for all emergency management issues identified during the conduct of independent oversight activities. OA may elevate any disputes with DOE managers concerning the corrective actions to higher levels of management up to the Secretary, if necessary.

Deputy Secretary Responsibilities:

- a. Serve as senior emergency management policy official.
- b. Settle cross-organizational disputes regarding resolution of safety issues identified by OA independent oversight.

Director, Office of Security and Emergency Operations:

- a. Coordinate resolution of emergency management policy issues identified during appraisals.
- b. Coordinate with cognizant secretarial officers and heads of field elements to resolve issues and concerns identified during appraisals.
- c. Coordinate with the Safety Management Implementation Team (or successor organization) to track emergency management corrective actions in the CATS.
- d. Coordinate with OA to review and comment on CAPs and to develop lessons learned.
- e. Review draft appraisal reports and other reports as appropriate to ensure factual accuracy regarding policies and/or activities of the Office of Security and Emergency Operations.
- f. Prepare CAPs within the prescribed time frames for findings relating to security and emergency management policy deficiencies.
- g. Provide official DOE interpretation of requirements contained within DOE Orders, Notices and Manuals under the cognizance of the Office of Security and Emergency Operations.

CSO Responsibilities:

- a. Ensure CAPs are developed to address issues identified in appraisal reports.



- b. Provide an opportunity for the Department's Chief Operating Officer or delegate to be briefed by FEM, OA, and the Office of Security and Emergency Operations on the related issues, the CAP, and any associated resource issues.
- c. Resolve identified cross-organizational disputes, such as those related to the timeliness or adequacy of CAPs or their implementation. If unsatisfied with responsible line management's resolution, elevate the dispute to the Deputy Secretary.

FEM Responsibilities:

- a. Ensure that duly authorized independent oversight personnel have unfettered access to information and facilities, consistent with safety and security requirements.
- b. Assign a cognizant line manager to prepare a CAP to address the issues raised in formal independent oversight assessment reports.
- c. Approve CAPs within 30 calendar days of the issuance of the formal independent oversight assessment report.
- d. If the Office of Independent Oversight and Performance Assurance provides comments on a CAP, determine whether the CAP needs to be revised to address those comments, and revise the CAP appropriately.
- e. Implement the CAP.
- f. Coordinate with the field and Headquarters DOE elements to ensure that all closed corrective actions have been verified by persons with sufficient independence from those who performed the work described in the CAP.

OA Responsibilities:

- a. Conduct independent oversight on the effectiveness and efficiency of emergency management policies and programs throughout the DOE complex; report to DOE management and external stakeholders on the results of independent oversight assessments; and monitor corrective actions to ensure resolution of identified issues.
- b. Submit formal assessment reports simultaneously to the applicable FEMs, cognizant line manager, CSO, Office of Security and Emergency Operations, and NNSA (when applicable).
- c. Review interim CAPs to resolve these safety issues within 15 days of their approval and discuss and resolve any inadequacies with the CSO and FEM. If a conclusion is reached that a CAP does not provide timely or adequate corrective actions for all of the identified safety issues, provide comments and their bases to the FEM, CSO and Office of Security and Emergency Operations.

- d. Identify and describe concerns related to corrective actions, such as timeliness or adequacy of CAPs or their implementation, to the cognizant line manager and the Office of Security and Emergency Operations. If unsatisfied with the line management resolution, elevate the dispute to the Deputy Secretary. Input identified safety issues into the CATS database, monitor the corrective action progress.

#### **9.6.3.4 Price-Anderson Act Enforcement**

The Office of Price-Anderson Enforcement (previously the Office of Enforcement and Investigation), EH-10, carries out the Department's function under the Price-Anderson Amendments Act of 1988 for investigation and enforcement of potential violations of DOE nuclear safety requirements, including QAP requirements, nuclear safety management, occupational radiation protection, workplace substance abuse programs, and DOE contractor employees protection programs. A memorandum of Understanding between EH and NNSA provides for the division of functions, authorities and responsibilities in this program between NNSA and non-NNSA facilities.

##### Secretary Responsibilities:

- a. Issue compliance orders, notices of review, and final orders.
- b. Receive appeals of compliance orders, exemptions, and final order, and grant or deny them.

##### PSO Responsibilities:

- a. Refer potential nuclear safety violations to the Office of Enforcement and Investigation for review under the provisions of 10 CFR Part 820, where appropriate.
- b. Provide information and support investigations.
- c. Participate in enforcement conferences with the Office of Enforcement and Investigation.

##### FEM Responsibilities:

Monitor contractor reporting of potential nuclear safety violations and noncompliances with nuclear safety rules to the Office of Enforcement and Investigation for review under the provisions of 10 CFR Part 820. Provide information and support investigations. Ensure the unfettered access of Office of Enforcement and Investigation personnel to information and facilities, consistent with safety and security requirements. Participate in enforcement conferences with the Office of Enforcement and Investigation.

##### EH-10 Responsibilities:

- a. Investigate noncompliances with nuclear safety rules.
- b. Assess the level of violation of noncompliances.

- c. Establish, maintain, and implement a noncompliance tracking system for self-reporting by contractors.
- d. For non-NNSA programs, issue notices of violation and issue civil penalties, where appropriate. For NNSA programs, recommend to the NNSA that it issue notices of violation and civil penalties, where appropriate.
- e. Refer violations to the Justice Department for criminal review, where appropriate.
- f. Recommend issuance of compliance orders by the Secretary in accordance with the provisions of 10 CFR Part 820, where appropriate.
- g. Issue enforcement letters to conclude an investigation in which no further action is warranted pending corrective action.
- h. Negotiate and issue consent orders as appropriate.

#### **9.6.3.5 Interface with DNFSB**

##### Deputy Secretary Responsibilities:

Resolve disagreements among Departmental elements on relative priorities, approaches, and assignment of responsibility for addressing Board-related safety issues.

##### All DOE Element Responsibilities:

Provide full cooperation with the Board, including ready access to Departmental facilities, personnel, and information; provide responses to DNFSB recommendations and requests as described in DOE M 140.1-1B, *Interface with the Defense Nuclear Facilities Safety Board*.

##### Departmental Representative to the DNFSB Responsibilities:

Represent the Department in regular and continuing interactions with the Board; manage Departmental interface activities and provide direction and advice to line management on Board-related matters as described in DOE M 140.1-1B, *Interface With The Defense Nuclear Facilities Safety Board*.

## APPENDIX A

### LIST OF REFERENCES, OFFICES OF PRIMARY INTEREST, AND RELEVANT MANUAL SECTIONS

The list below contains relevant directives, including those that have been canceled in whole or in part. Although the requirements contained in canceled directives are no longer mandatory (unless included in specific contracts), the responsibilities that were assigned are to be considered in developing FRA documents to ensure the safety functions in canceled directives continue to be performed. The most current edition of any reference should be used, including any page changes. For a current edition of any directive, and archives of canceled directives, see the Directives home page at <http://www.directives.doe.gov/>.

#### Federal Statutes and Requirements

Reference Number	Title	Manual Section
Public Law 83-703	Atomic Energy Act of 1954	5
Public Law 91-596	Occupational Safety and Health Act of 1970	5, 9.3
Public Law 103-411	Independent Safety Board Act Amendments of 1994	5,9.1, 9.2.2.1
Public Law 104-113	National Technology Transfer and Advancement Act of 1995	9.2.2.2, 9.2.2.3
Public Law 104-303	Water Resources Development Act of 1996	9.6.1.6
Public Law 106-65	National Defense Authorization Act	569
Executive Order 12941	Seismic Safety of Existing Federally Owned or Leased Buildings	9.6.1.6
Executive Order 13148	Greening the Government through Environmental Management	9.6.1.4
OMB A-119	Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities	9.2.2

#### Code of Federal Regulations

Reference Number	Title	Manual Section
10 CFR 707	Workplace Substance Abuse Programs at DOE Sites	
10 CFR 708	DOE Contractor Employees Protection Program	9.6.3.3
10 CFR 711	Personnel Assurance Program	9.4.4
10 CFR 820	Procedural Rules for DOE Nuclear Activities	9.4.1.4 9.4.1.5 9.6.3.5

**Code of Federal Regulations (continued)**

<b>Reference Number</b>	<b>Title</b>	<b>Manual Section</b>
10 CFR 830	Nuclear Safety Management	9.3.1, 9.4.1, 9.4.2, 9.5.3, 9.6.2
10 CFR 835	Occupational Radiation Protection	5, 9.4.1.5
10 CFR 850	Chronic Beryllium Disease Prevention Program	9.3
14 CFR Chapter 1	Federal Aviation Regulations	9.2.2.1
29 CFR 1910	Occupational Safety and Health Standards	9.3
29 CFR 1926	Safety and Health Regulations for Construction	9.3
29 CFR 1960	Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters	9.1, 9.5
40 CFR Chapter 1	Protection of the Environment, Environmental Protection Agency	9.3, 9.5, 9.6
41 CFR 101-37	Aviation Management and Safety	9.1, 9.2.2.1
48 CFR Chapter 9	DOE Acquisition Regulations	9.1, 9.2.2.4, 9.2.3, 9.6.1.3
49 CFR 171,2,3,5	Transportation of Hazardous Materials	9.2.2.1
49 CFR 830	National Transportation Safety Board, Accident Reporting	9.6.1.5

**DOE Policies**

<b>Policy Number</b>	<b>Title</b>	<b>OPI</b>	<b>Manual Section</b>
DOE P 111.1	<i>Departmental Organization Management System</i>	MA	8
DOE P 251.1	<i>Directives System</i>	MA	9.6.1.1
DOE P 410.1A	<i>Promulgating Nuclear Safety Requirements</i>	GC	9.1.1
DOE P 411.1	<i>Safety Management Functions, Responsibilities and Authorities</i>	EH	7, 9.1.1, 9.2.2.5
DOE P 426.1	<i>Federal Technical Capability Policy for Defense Nuclear Facilities</i>	MA	5, 9.1.6.1
DOE P 441.1	<i>Department of Energy Radiological Health and Safety Policy</i>	EH	9.1.1
DOE P 450.1	<i>Environment, Safety and Health Policy for the Department of Energy Complex</i>	EH	9.1.1

**DOE Policies (continued)**

<b>Policy Number</b>	<b>Title</b>	<b>OPI</b>	<b>Manual Section</b>
DOE P 450.2A	<i>Identifying, Implementing, and Complying with Environment, Safety and Health Requirements</i>	GC	9.4.1
DOE P 450.3	<i>Authorizing Use of The Necessary and Sufficient Process for Standards-based Environment, Safety And Health Management</i>	EH	9.4.1
DOE P 450.4	<i>Safety Management System Policy</i>	EH	1, 4
DOE P 450.5	<i>Line Environment, Safety and Health Oversight</i>	DP	9.5.2, 9.6.3.1
DOE P 450.6	<i>Secretarial Policy Statement Environment, Safety and Health</i>	EH	9.6

**DOE Orders (New Series)**

<b>Order Number</b>	<b>Title</b>	<b>OPI</b>	<b>Manual Section</b>
DOE O 130.1	<i>Budget Formulation</i>	CFO	9.1.4
DOE O 135.1	<i>Budget Execution - Funds Distribution and Control</i>	CFO	9.1.5, 9.2.3
DOE O 151.1A	<i>Comprehensive Emergency Management System</i>	SO	5, 9.3, 9.4.2, 9.6.1.1
DOE O 210.1	<i>Performance Indicators and Analysis of Operations Information</i>	EH	9.6.1.1 9.6.1.3
DOE O 225.1A	<i>Accident Investigations</i>	EH	9.6.1.5
DOE O 231.1	<i>Environment, Safety and Health Reporting</i>	EH	9.6.1.4
DOE O 232.1A	<i>Occurrence Reporting and Processing of Operations Information</i>	EH	9.6.1.2
DOE O 251.1A	<i>Directives System</i>	MA	9.2.2.1 9.4.1.3
DOE O 360.1A	<i>Training</i>	MA	9.1.6
DOE O 413.1	<i>Management Control Program</i>	CFO	9.2.1
DOE O 414.1A	<i>Quality Assurance</i>	EH	9.2.2.5, 9.5.3, 9.6.2
DOE O 420.1	<i>Facility Safety</i>	EH	9.4.2, 9.4.3.2
DOE O 420.2	<i>Safety of Accelerator Facilities</i>	SC	9.3.1, 9.4.3.2
DOE O 425.1A	<i>Startup and Restart of Nuclear Facilities</i>	EH	9.5.1

**DOE Orders (New Series) (continued)**

<b>Order Number</b>	<b>Title</b>	<b>OPI</b>	<b>Manual Section</b>
DOE O 426.1	<i>Federal Technical Capability for Defense Nuclear Facilities</i>	MA	9.1.6
DOE O 430.1A	<i>Life-cycle Asset Management</i>		9.2.2.4
DOE O 435.1	<i>Radioactive Waste Management</i>	EM	9.4
DOE O 440.1A	<i>Worker Protection Management for DOE Federal and Contractor Employees</i>	9.5	9.5
DOE O 440.2	<i>Aviation</i>	MA	5,9.1.1
DOE O 442.1	<i>Department of Energy Employee Concerns Program</i>	ED	9.1
DOE O 451.1A	<i>National Environmental Protection Act Compliance Program</i>	9.4	9.4
DOE O 452.1A	<i>Nuclear Explosive and Weapon Surety Program</i>	DP	9.4.4
DOE O 452.2A	<i>Safety of Nuclear Explosive Operations</i>	DP	9.4.4
DOE O 460.1A	<i>Packaging and Transportation Safety</i>	EM	9.4
DOE O 460.2	<i>Departmental Materials Transportation and Management</i>	EM	9.4
DOE O 470.2A	<i>Security and Emergency Management Independent Oversight and Performance Assurance Program</i>	OA	5, 9.3

**DOE Orders (Old Series)**

*Some of the directives on the following list have been canceled. Cancellation of an Order does not, by itself, modify or otherwise affect any contractual obligation to comply with such an Order. Canceled Orders that are incorporated by reference in a contract must remain in effect until the contract is modified to delete the reference to the requirements in the canceled Orders. Organization functions, responsibilities, and authorities documents should consider the responsibilities assigned in canceled directives where these are included in contracts the organization administers.*

<b>Order Number</b>	<b>Title</b>	<b>OPI</b>	<b>Manual Section</b>
DOE 1300.2A	<i>Department of Energy Technical Standards Program</i>	EH	9.2.2.2 9.2.2.3
DOE 4320.2A	<i>Capital Asset Management Process</i>		9.2.4
DOE 4330.4B	<i>Maintenance Management Program</i>		9.1, 9.2.2.5
DOE 4700.1	<i>Project Management System</i>	MA	9.1
DOE 5400.1	<i>General Environmental Protection Program</i>	EH	9.4
DOE 5400.5	<i>Radiological Protection of The Public and the Environment</i>	EH	9.4

**DOE Orders (Old Series) (continued)**

<b>Order Number</b>	<b>Title</b>	<b>OPI</b>	<b>Manual Section</b>
DOE 5480.3 Canceled	<i>Safety Requirements for the Packaging and Transportation of Hazardous Materials, Hazardous Substances, and Hazardous Wastes</i>	EM	see DOE O 460.1,2
DOE 5480.7A Canceled	<i>Fire Protection</i>	EH	9.4.3.2
DOE 5480.18B Canceled	<i>Nuclear Facility Training Accreditation Program</i>	EH	9.1.6, 9.4
DOE 5480.19	<i>Conduct of Operations Requirements for DOE Facilities</i>	EH	9.4
DOE 5480.20A	<i>Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities</i>	EH	9.1.6
DOE 5480.21	<i>Unreviewed Safety Questions</i>	EH	see DOE 5480.23
DOE 5480.22	<i>Technical Safety Requirements</i>	EH	9.4.1, 9.4.2 9.4.3.1
DOE 5480.23	<i>Nuclear Safety Analysis Reports</i>	EH	9.3.1, 9.4.1 9.4.3.1
DOE 5480.24 Canceled	<i>Nuclear Criticality Safety</i>	EH	see DOE O 420.1
DOE 5480.25 Canceled	<i>Safety of Accelerator Facilities</i>	SC	see DOE O 420.2
DOE 5480.28 Canceled	<i>Natural Phenomena Hazards Mitigation</i>	EH	see DOE O 420.1
DOE 5480.29 Canceled	<i>Employee Concerns Management System</i>	EH	see DOE O 442.1
DOE 5480.30	<i>Nuclear Reactor Safety Design Criteria</i>	EH	9.3.1, 9.4.3.2
DOE 5480.31 Canceled	<i>Startup And Restart of Nuclear Facilities</i>	EH	see DOE O 425.1A
DOE 5481.1B Canceled	<i>Safety Analysis and Review System</i>	EH	9.4.3.2
DOE 5530.1A	<i>Accident Response Group</i>	DP	9.4.2
DOE 5530.2	<i>Nuclear Emergency Search Team</i>	DP	9.4.2
DOE 5530.4	<i>Aerial Measuring System</i>	DP	9.4.3.2
DOE 5610.13	<i>Joint Department of Energy/Department of Defense Nuclear Weapon System Safety, Security, and Control Activities</i>	DP	9.4.3.2



**DOE Orders (Old Series) (continued)**

<b>Order Number</b>	<b>Title</b>	<b>OPI</b>	<b>Manual Section</b>
DOE 5700.6C Canceled	<i>Quality Assurance</i>	EH	see DOE O 414.1
DOE 5820.2A Canceled	<i>Radioactive Waste Management</i>	EM	see DOE O 435.1

**DOE Manuals**

<b>Manual Number</b>	<b>Title</b>	<b>OPI</b>	<b>Manual Section</b>
DOE M 135.1-1	<i>Budget Execution Manual</i>	CFO	9.1.5, 9.2.2.1, 9.2.3
DOE M 140.1-1B	<i>Interface with the Defense Nuclear Facilities Safety Board</i>	S3.1	9.6.1, 9.6.3.5
DOE M 232.1-1A	<i>Occurrence Reporting and Processing of Operations Information</i>	EH	9.6.1.2
DOE M 251.1-1A	<i>Directives System Manual</i>	HR	9.2.2.1 9.2.2.2 9.4.1.3
DOE M 435.1-1	<i>Radioactive Waste Management Manual</i>	EM	9.4.3.2
DOE M 450.3-1	<i>The Department of Energy Closure Process for Necessary and Sufficient Sets of Standards</i>	EH	9.4.1

**DOE Standards**

<b>Standard Number</b>	<b>Title</b>	<b>OPI</b>	<b>Manual Section</b>
STD-1021-93	<i>Natural Phenomena Hazards Performance Categorization Guidelines for Structures, Systems, and Components</i>	EH	9.3.2
STD-1022-94	<i>Natural Phenomena Hazards Characterization Criteria</i>	EH	9.3.2
STD-1023-95	<i>Natural Phenomena Hazards Assessment Criteria</i>	EH	9.3.1
STD-1027-92	<i>Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Reports</i>	EH	9.3.2
STD-1032-92	<i>Guide to Good Practices for Operations Organization and Administration</i>	EH	9.2.2.4

**DOE Standards (continued)**

<b>Standard Number</b>	<b>Title</b>	<b>OPI</b>	<b>Manual Section</b>
STD-1050-93	<i>Guideline to Good Practices for Planning, Scheduling, and Coordination of Maintenance at DOE Nuclear Facilities</i>	EH	9.2.4
STD-1051-93	<i>Guideline to Good Practices for Maintenance Organization and Administration at DOE Nuclear Facilities</i>	EH	9.2.4
STD-1052-93	<i>Guideline to Good Practices for Types of Maintenance Activities at DOE Nuclear Facilities</i>	EH	9.2.4
STD-1055-93	<i>Guideline to Good Practices for Maintenance Management Involvement at DOE Nuclear Facilities</i>	9.6	9.6
STD-1063-2000	<i>Facility Representatives</i>	S3.1	9.5.1, 9.5.2, 9.6.1.2
STD-1070-94	<i>Guidelines for Evaluation of Nuclear Facility Training Programs</i>	EH	9.1.6
STD-1073-93	<i>Guide for Operational Configuration Management Program</i>	EH	9.4.3
STD-1082-94	<i>Preparation, Review, and Approval of Implementation Plans for Nuclear Safety Requirements</i>	EH	9.4.1.6
STD-1083-95	<i>Requesting and Granting Exemptions to Nuclear Safety Rules</i>	EH	9.4.1.4
STD-1104-96	<i>Review and Approval of Nonreactor Nuclear Facility Safety Analysis Reports</i>	EM	9.3.1
STD-1120-98	<i>Integration of Environment, Safety, and Health Into Facility Disposition Activities</i>	EH	9.2, 9.3, 9.4, 9.5, 9.6
STD-3006-2000	<i>Planning and Conducting of Operational Readiness Reviews (ORR)</i>	DP	9.5.1
STD-3009-94	<i>Preparation Guide for U.S. DOE Nonreactor Nuclear Facility Safety Analysis Reports</i>	DP	9.3.1
STD-3011-94	<i>Guidance for Preparation of DOE 5480.22 (TSR) and DOE 5480.23 (SAR) Implementation Plans</i>	DP	9.4.3
STD-3015-97	<i>Nuclear Explosive Safety Study Process</i>	DP	9.4.4
STD-3016-99	<i>Hazards Analysis Reports for Nuclear Explosive Operations</i>	DP	9.4.4
STD-7501-99	<i>DOE Corporate Lessons Learned Program</i>	EH	9.6.1.1

**DOE Guides**

<b>Guide Number</b>	<b>Title</b>	<b>OPI</b>	<b>Manual Section</b>
DOE G 120.1-5	<i>Guidelines for Performance Measurement</i>	EH	9.6.1.3
DOE G 151.1-1	<i>Emergency Management Guide</i>	SO	
DOE G 414.1-2	<i>Quality Assurance Management System Guide for Use with 10 CFR 830.120 and DOE O 414.1</i>	EH	9.5.3, 9.4.1.6
DOE G 421.1-1	<i>DOE Good Practice Guide</i>	EH	9.4
DOE G 421.X DRAFT	<i>Implementation Guide for Use in Developing Documented Safety Analyses to Meet Subpart B of 10 CFR Part 830.120.</i>	EH	9.4.1.6
DOE G 423.X DRAFT	<i>Implementation Guide for Use in Developing Technical Safety Requirements (TSR).</i>	EH	9.4.1.6
DOE G 424.X DRAFT	<i>Implementation Guide for Use in Addressing Unreviewed Safety Question (USQ) Requirements.</i>	EH	9.4.1.6
DOE G 426.1-1	<i>Recruiting, Hiring, and Retaining High-quality Technical Staff: a Manager's Guide to Administrative Flexibilities.</i>	MA	9.1.6.1
DOE G 430.1-3 DRAFT	<i>Deactivation Implementation Guide</i>		
DOE G 430.1-4 DRAFT	<i>Decommissioning Implementation Guide</i>		
DOE G 440.1-6	<i>Implementation Guide for Use with Suspect/Counterfeit Requirements of DOE O 440.1, Worker Protection Management; 10 CFR 830.120; and DOE 5700.6c, Quality Assurance</i>	EH	9.5.3
DOE G 441.1-1	<i>Management and Administration of Radiation Protection Programs Guide for Use with Title 10, Code of Federal Regulations, Part 835, Occupational Radiation Protection</i>	EH	9.4.1.6
DOE G 441.1-3	<i>Internal Dosimetry Program Guide for Use with 10 CFR 835, Occupational Radiation Protection</i>	EH	
DOE G 441.1-6	<i>Evaluation and Control of Radiation Dose to the Embryo/Fetus Guide for Use with 10 CFR 835, Occupational Radiation Protection</i>	EH	
DOE G 441.1-7	<i>Portable Monitoring Instrument Calibration Guide for Use with 10 CFR 835, Occupational Radiation Protection</i>	EH	
DOE G 441.1-8	<i>Air Monitoring Guide for Use with 10 CFR 835, Occupational Radiation Protection</i>	EH	
DOE G 441.1-9	<i>Radioactive Contamination Control Guide for Use with 10 CFR 835, Occupational Radiation Protection</i>	EH	

**DOE Guides (continued)**

<b>Guide Number</b>	<b>Title</b>	<b>OPI</b>	<b>Manual Section</b>
DOE G 441.1-10	<i>Posting and Labeling for Radiological Control Guide for Use with 10 CFR 835, Occupational Radiation Protection</i>	EH	
DOE G 441.1-11	<i>Occupational Radiation Protection Record-keeping and Reporting Guide for Use with 10 CFR 835, Occupational Radiation Protection</i>	EH	
DOE G 441.1-12	<i>Radiation Safety Training Guide for Use with 10 CFR 835, Occupational Radiation Protection</i>	EH	
DOE G 442.1-1	<i>DOE Employee Concerns Program Guide</i>	ED	9.4.3.2
DOE G 450.4-1	<i>Integrated Safety Management System Guide</i>	EH	14
DOE G 452.2A-1A	<i>Implementation Guide for DOE Order 452.2a, Safety of Nuclear Explosive Operations</i>	DP	9.4.4

**DOE Handbooks**

<b>Handbook Number</b>	<b>Title</b>	<b>OPI</b>	<b>Manual Section</b>
HDBK-1085-95	<i>DOE Enforcement Program Roles and Responsibilities</i>	EH	9.4.1.6, 9.6.3.4
HDBK-1100-96	<i>Chemical Process Hazards Analysis</i>	EH	9.3.1
HDBK-1101-96	<i>Process Safety Management for Highly Hazardous Chemicals</i>	EH	9.3.1

## APPENDIX B

### ACRONYMS

AEA	Atomic Energy Act
CAP	corrective action plan
CFR	Code of Federal Regulations
CSO	cognizant secretarial office
DEAR	Department of Energy Acquisition Regulation
DNFSB	Defense Nuclear Facilities Safety Board
DOE	Department of Energy
DOEOA	Department of Energy Organization Act
DSA	documented safety analysis
EH	Office of the Assistant Secretary for Environment, Safety and Health
EM	Office of the Assistant Secretary for Environmental Management
EPA	Environmental Protection Agency
ES&H	environment, safety and health
FEM	field element manager
FEOSH	Federal Employee Occupational Safety and Health
FMC	Field Management Council
FRA	functions, responsibilities, and authorities
GC	Office of the General Counsel
GOCO	Government-owned, contractor-operated
GOGO	Government-owned, Government-operated
HDBK	handbook
ISM	integrated safety management
LPSO	lead program secretarial office
MA	Office of Management and Administration
NNSA	National Nuclear Security Administration
OA	Office of Independent Oversight and Performance Assurance
OMB	Office of Management and Budget
OPI	office of primary interest
ORPS	Occurrence Reporting and Processing System
ORR	Operational Readiness Review
P.L.	Public Law
PSO	program secretarial office
QAP	quality assurance program
RPP	radiation protection program
STD	standard
USQ	unreviewed safety question

## APPENDIX C

### DEFINITIONS

**Accountability.** The state of being liable for explanation to a superior Department of Energy (DOE) official for the exercise of authority. Ultimate accountability is to the Secretary, who may delegate authority or share responsibility for specified actions. The delegate of an authority is accountable to the delegating responsible authority for the proper and diligent exercise of that authority. Responsibility differs from accountability in that a responsible official “owns” the function for which he or she is responsible; it is an integral part of his or her duties to see that the function is properly executed, to establish criteria for the judgment of excellence in its execution, and to strive for continuous improvement in that execution. A responsible official is associated with the outcomes of the exercise of authority regardless of whether it was delegated and regardless of whether the delegate properly followed guidance. Accountability, on the other hand, involves the acceptance of the authority for execution (or for further delegation of components of execution) by using guidance and criteria established by the responsible authority.

**Authority.** The permission afforded by law, regulation or directive, or delegated by senior management enabling a DOE employee to perform a function or reach and implement a decision.

**Authorization Agreement.** A documented agreement between DOE and the contractor for high-hazard facilities (Category 1 and 2), incorporating the results of DOE’s review of the contractor’s proposed authorization basis for a defined scope of work. The authorization agreement contains key terms and conditions (controls and commitments) under which the contractor is authorized to perform the work.

**Authorization Basis.** Those aspects of the facility design basis and operational requirements relied upon by DOE to authorize operation. These aspects are considered to be important to the safety of the facility operations. The authorization basis is described in documents such as the facility safety analysis report and other documented safety analyses; hazard classification documents, and the Technical Safety Requirements, DOE-issued safety evaluation reports, and facility-specific commitments made in order to comply with DOE Orders or Policies. [DOE 5480.21, DOE 5480.23]

**Authorization Protocols.** Those processes used to communicate acceptance of the contractor’s integrated plans for hazardous work. Such protocols are expected to range from preperformance review and approval by DOE of detailed safety-related terms and conditions for performing work (authorization agreement) to less rigorous oversight and post performance assessment of the contractor’s work.

**Aviation Board of Directors.** A deliberative body whose members come from DOE organizations who own or operate aircraft in the performance of DOE missions and are appointed by the Director, Office of Management and Administration, for the purposes of approving broad aviation safety policy.

**Chief Operating Officer.** That DOE employee delegated the authority by the Secretary to manage day-to-day operations of the Department. At present, the Chief Operating Officer is the Deputy Secretary. Lead program secretarial offices (LPSOs) also may have chief operating officers for their operations (see 9.4.1.2).

**Cognizant Line Manager.** The DOE field or Headquarters element manager with direct safety responsibilities for the DOE facility, who is also directly responsible for the development, approval (when delegated such authority by the cognizant secretarial officer), and implementation of corrective action plans (CAPs) and associated corrective action completion, tracking and reporting. The cognizant line manager is also responsible for initiating action to elevate issues associated with CAP development, implementation, and completion to higher authority for resolution when necessary.

**Cognizant Secretarial Officer. (CSO, used for both the office and the officer heading that office)** The Assistant Secretary, NNSA Deputy Administrator, or Director responsible for a bounded set of facilities or a laboratory (e.g., Lawrence Livermore National Laboratory, Y-12 National Security Complex) within a field office's jurisdiction. (See memorandum, T.J. Glauthier to Departmental Elements, "Roles and Responsibilities Guiding Principles," June 2, 2000.)

**Contracting Officer.** A DOE official holding the authority to make purchases or contract for goods and services in excess of \$25,000. Contracting officers are appointed using Standard Form 1402, following procedures in DOE O 541.1A, *Appointment of Contracting Officers and Contracting Officer Representatives*. For Headquarters support contracts, the contracting officer is generally a member of the Office of Management and Administration. [Federal Acquisition Regulation 1.6, Department of Energy Acquisition Regulation 901.6]

**Delegation.** Written permission granted by a responsible authority to another DOE employee to perform a specific function on behalf of that responsible authority, usually containing guidance on the manner in which the authority is to be used. By delegation, the responsible authority cannot diminish his or her responsibility for the consequences of the exercise of the authority.

**Documented Safety Analysis.** A documented analysis of the extent to which a nuclear facility can be operated safely with respect to workers, the public, and the environment, including a description of the conditions, safe boundaries, and hazard controls that provide the basis for ensuring safety. [10 CFR 830.3(a)]

**Ensure.** As used in this Manual, to ensure means that normal supervision is to be used to confirm to the ensuring organization's satisfaction that a condition is being met or an activity is being properly conducted. The degree of rigor used by the ensuring organization should depend on the history of supervision of the performing organization.

**Facility Representative.** For each major facility or group of lesser facilities, an individual assigned responsibility by the head of the field element for monitoring the performance of the facility and its operations. [DOE 5480.19, DOE-STD-1063-2000]

**Federal Technical Capabilities Panel.** A panel of senior technical safety managers appointed by the Managers, Directors, Deputy Administrators, or Assistant Secretaries of Headquarters, operations, and field offices, reporting to the Deputy Secretary. The panel meets at least once per quarter as a working group to discuss and formulate policy concerning the Federal Technical Capability Program.

**Field Element.** A non-Headquarters DOE organization. Field elements can be area offices, support offices, operations offices, field offices, regional offices, or offices located at environmental restoration, construction, or termination sites.

**Field Element Manager (FEM).** The DOE employee having overall responsibility for a field element.

**Field Management Council (FMC).** The body created by the Secretary in a memo dated April 21, 1999, and charged with “corporate program integration and the integration of support activities with line programs.” All staff and support office policy and guidance that impact the field must flow through the FMC. The FMC is chaired by the Deputy Secretary, and includes the Under Secretaries, the Assistant Secretary for Environmental Management, the NNSA Deputy Administrator, and the Director of the Office of Science. Two other members, one from among the other program secretarial offices (PSOs) and the other a field element manager, serve in rotation. The FMC has virtually the same composition as the Secretarial Safety Council, which it has largely replaced.

**Function.** An action or activity undertaken by a DOE employee in performing or contributing to the performance of work in compliance with component 3 of DOE P 450.4, *Safety Management Policy*. This component defines five core functions for integrated safety management, each of which includes several derivative functions that are to be applied with a degree of rigor appropriate to the type of activity and hazards involved.

**Hazard.** A source of danger (i.e., material, energy source, or operation) with the potential to cause illness, injury, or death to personnel or damage to an operation or to the environment (without regard for the likelihood or credibility of accident scenarios or consequence mitigation). [DOE 5480.23] [10 CFR 830.3(a)]

**Hazard Analysis.** The determination of material, system, process, and plant characteristics that can produce undesirable consequences, followed by the assessment of hazardous situations associated with a process or activity. Largely qualitative techniques are used to pinpoint weaknesses in design or operation of the facility that could lead to accidents. The safety analysis report hazard analysis examines the complete spectrum of potential accidents that could expose members of the public, on-site workers, facility workers, and the environment to hazardous materials. [DOE-STD-3009-94]

**Hazard Classification.** Evaluation of the consequences of unmitigated releases, performed to classify facilities or operations into the following hazard categories:

- Category 1: The hazard analysis shows the potential for significant offsite consequences.
- Category 2: The hazard analysis shows the potential for significant on-site consequences.
- Category 3: The hazard analysis show the potential for only significant localized consequences [DOE 5480.23;10 CFR 830 Appendix A Subpart B Table 1].

DOE-STD-1027-92 provides guidance and radiological threshold values for determining the hazard category of a facility, and 10 CFR 830.202(b)(3) requires that this guidance be used. DOE-STD-1027-92 interprets Hazard Category 1 facilities as Category A reactors and other facilities designated as such by the program secretarial officer. [DOE-STD-3009-94]

**Hazard Controls.** Measures to eliminate, limit, or mitigate hazards to workers, the public, or the environment, including—

- (1) physical, design, structural, and engineering features;
- (2) safety structures, systems, and components;
- (3) safety management programs;
- (4) Technical Safety Requirements; and
- (5) other controls necessary to provide adequate protection from hazards [10 CFR 830.3(a)].



**Hazards Assessment.** A quantitative assessment of hazardous materials at DOE sites, and their potential emergency planning implications. Hazardous materials include any solid, liquid, or gaseous material that is toxic, flammable, radioactive, corrosive, chemically reactive, or unstable upon prolonged storage in quantities that could pose a threat to life, property, or the environment. Oil is not included in this definition of hazardous materials. (See Chapter IV of DOE O 151.1A for specific requirements pertaining to Operational Emergency Hazardous Materials Programs.) [DOE O 151.1A]

**Hazards Survey.** A hazards survey (i.e., qualitative examination) is performed to identify the conditions to be addressed by the comprehensive emergency management program at each DOE site. Its purpose is to: (a) identify (e.g., in matrix or tabular form) the emergency conditions (e.g., fires, workplace accidents, and natural phenomena); (b) describe the potential health, safety, or environmental impacts; and (c) summarize the planning and preparedness requirements that apply. [DOE O 151.1A]

**Head of the Contracting Activity.** Head of a Departmental element who has been delegated authority by the Deputy Assistant Secretary for Procurement and Assistance Management or the NNSA Headquarters Procurement Officer to award and administer contracts, sales contracts, and/or financial assistance instruments; appoint contracting officers; and exercise the overall responsibility for managing the contracting activity. [DOE Glossary]

**Interface.** The interactions between organizations, typically documented in the form of memorandums of understanding, agreements, or delegations of authority. An interface can be between DOE program offices, field elements, or other Federal agencies.

**Landlord Activities.** At multiprogram sites, activities such as the maintenance of utilities, roads, fences, fire protection, buildings and support services that are used in common by the individual programs that operate at the site.

**Lead Program Secretarial Office (LPSO).** The Assistant Secretary, Director, or NNSA Deputy Administrator to whom assigned field elements directly report, and who has overall ownership responsibility for those field elements. (See memorandum, T. J. Glauthier to Departmental Elements, "Roles and Responsibilities Guiding Principles," June 2, 2000.)

**Nuclear Facility.** Reactor and nonreactor nuclear facilities. A reactor is defined as any apparatus that is designed or used to sustain nuclear chain reactions in a controlled manner, including critical and pulsed assemblies and research, test, and power reactors. A nonreactor nuclear facility is defined as those activities or operations that involve radioactive and/or fissionable materials in such form and quantity that a nuclear hazard potentially exists to the employees or the general public. [10 CFR 830.3(a)]

**Office of Primary Interest (OPI).** The office most involved in the activity under consideration. Most DOE initiatives will affect many offices; that office being most affected and assuming a dominant role in the initiative is the Office of Primary Interest.

**Oversight.** The responsibility and authority assigned to the Assistant Secretary for Environment, Safety and Health to independently assess the adequacy of DOE and contractor safety performance and to the Director, Office of Independent Oversight and Performance Assurance to independently assess the adequacy of DOE and contractor emergency management performance. Oversight is separate and distinct from line management activities, including self-assessments. [DOE Glossary]

**Program Office.** See program secretarial office.

**Program Secretarial Office (PSO, used for both office and officer heading that office).** A Headquarters organization responsible for executing program management functions, and for assisting and supporting field elements in safety and health, administrative, management, and technical areas. [DOE Glossary]

As used in this Manual, a program office is a DOE first-tier organization responsible for one or more of the Department's congressionally established missions. These offices report to the Assistant Secretaries of Energy Efficiency and Renewable Energy, Environmental Management, and Fossil Energy; the Offices of Civilian Radioactive Waste Management, Science, Fissile Materials Disposition, and Nuclear Energy, Science and Technology; and the Deputy Administrators (NNSA). Some secretarial offices commonly refer to their component organizations that are responsible for specific program elements as program offices.

**Responsibility.** The state of being liable for the outcome of the exercise of an authority granted by law, regulation, or directive.

**Safety Basis.** The combination of information relating to the control of hazards at a facility (including design, engineering analyses, and administrative control) upon which DOE depends for its conclusion that activities at the facility can be conducted safely. [DOE 5480.23] The documented safety analysis and hazard controls that provide reasonable assurance that a DOE nuclear facility can be operated safely in a manner that adequately protects workers, the public, and the environment. [10 CFR 830.3(a)]

**Safety Documentation.** Reports, memorandums, and other signed and dated documents that identify the hazards of a process or facility and describe measures for their control. (See DOE 5480.23.)

**Safety Management Function.** An activity that may affect the safety and health of workers or the public or the protection of the environment. [DOE P 450.4]

**Safety Management Systems.** Safety Management Systems provide a formal, organized process whereby people plan, perform, assess, and improve the safe conduct of work. The Safety Management System is institutionalized through DOE directives and contracts to establish the Department-wide safety management objective, guiding principles, and functions. The safety management system consists of six components: (1) objective, (2) guiding principles, (3) core functions, (4) mechanisms, (5) responsibilities, and (6) implementation. These are explained in detail in DOE P 450.4, *Safety Management Systems*, and their implementation is outlined in the associated guides.

**Secretarial Officer.** The head of a first-tier organization; a DOE Headquarters employee reporting directly to the Secretary, Deputy Secretary, or the Under Secretaries for NNSA and for Energy, Science and Environment. This title is used throughout this Manual to include support staff and program officers.

**Senior Aviation Management Official.** The Director, Office of Aviation Management, who is appointed by the Secretary and serves as Chair of the Aviation Board of Directors.

**Support Office.** A DOE organization that provides administrative, legal, technical, independent oversight, policy, or standards support to program offices for safety management functions. Headquarters support offices include those that report to the Assistant Secretary for Environment, Safety and Health; the Office of Management and Administration; and the Office of General Counsel.

CANCELED