**Department of Energy**

Washington, DC 20585

October 19, 1999

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DNF SAFETY BOARD

The Honorable John T. Conway
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue N. W., Suite 700
Washington, D.C. 20004

Dear Mr. Chairman:

The Department has recently revised its Functions, Responsibilities, and Authorities Manual (DOE M 411.1-1A) and its Quality Assurance Order (DOE O 414.1A). Among the many changes incorporated into these documents are the Departmental requirements for disposition of safety issues derived from Independent Oversight reviews.

The Department believes that these two documents contain the requirements committed to in Commitments 5.1.2 and 5.2 in the Implementation Plan for Recommendation 98-1. The Department proposes closure of these two commitments. If you have any questions concerning this information, please contact me at (202) 586-1418 or Joe Hassenfeldt at (202) 586-1643.

Sincerely,

A handwritten signature in black ink, appearing to read "T. Wyka".

Theodore A. Wyka
Director, Safety Management
Implementation Team

Enclosures

SEPARATION

PAGE

U.S. Department of Energy
Washington, D.C.

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ORDER

DOE O 414.1A

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DNF SAFETY BOARD

Approved: 9-29-99
Review Date: 9-29-01

SUBJECT: QUALITY ASSURANCE

1. OBJECTIVES. To establish an effective management system [i.e., quality assurance programs (QAPs)] using the performance requirements of this Order, coupled with technical standards where appropriate, that ensures the following.
 - a. Senior management provides planning, organization, direction, control, and support to achieve Department of Energy (DOE) objectives.
 - b. Line organizations achieve and maintain quality.
 - c. Line organizations minimize environmental, safety, and health risks and impacts while maximizing reliability and performance.
 - d. Line organizations have a basic management system in place supporting this Order that is consistent with the principles and functions of DOE P 450.4, SAFETY MANAGEMENT SYSTEM POLICY.
 - e. Each DOE element reviews, evaluates, and improves its overall performance and that of its contractors using a rigorous assessment process based on an approved Quality Assurance Program [see 48 Code of Federal Regulations (CFR) 970.1001(d) and DOE P 450.5].

This revision adds Attachment 2 and related DOE administrative updates.
2. CANCELLATION. DOE O 414.1, QUALITY ASSURANCE, dated 11-24-98 is canceled. Cancellation of a directive does not, by itself, modify or otherwise affect any contractual obligation to comply with such a directive. Canceled directives that are incorporated by reference in a contract must remain in effect until the contract is modified to delete the requirements in the canceled directives.
3. APPLICABILITY.
 - a. DOE Elements. DOE elements must follow this Order when performing their work.
 - b. Contractors. The contractor requirements document (CRD), Attachment 1, sets forth intended requirements to be applied to all contractors (e.g., management and integration, management and operation) responsible for DOE-owned or -leased facilities and

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associated items and services. This includes work that may take place outside the physical boundaries of a DOE facility or work performed by suppliers and subcontractors (such as design, manufacturing, or analytical laboratory services). DOE elements must use a graded approach to determine the other contractors to whom the requirements will apply. Contractor compliance with the CRD will be required to the extent set forth in a contract.

- c. Exclusions. Executive Order 12344, statutorily prescribed by P.L. 98-525 (42 U.S.C. 7158, note), establishes the responsibilities and authority of the Director, Office of Naval Reactors, for all facilities and work that comprise the Program, which is a joint Navy-DOE organization. These executive and legislative actions establish the Director's responsibilities for the safety of reactors and associated naval nuclear propulsion plants, the control of radiation and radioactivity associated with naval nuclear propulsion plants, and the operating practices and procedures applicable to naval nuclear propulsion plants. The Director must establish the quality assurance requirements implemented within the Program. Accordingly, this Order does not apply to the Naval Reactors Program.
- d. Other Quality Requirements.
 - (1) Some portions of DOE work are subject to regulation by quality assurance requirements from the Nuclear Regulatory Commission (NRC), an NRC Agreement State, the Environmental Protection Agency, DOE (10 CFR 830.120), or other government agencies. This Order applies to those portions of the work that are not so regulated.
 - (2) DOE elements may impose additional quality requirements and/or specific standards as necessary for certain types of work (e.g., the Office of Defense Programs nuclear weapons production standard, QC-1, or the Office of Civilian Radioactive Waste Management requirement, RW-0333P) to ensure that the work meets their expectations and the requirements of this Order.
 - (3) DOE endorses the use of a single integrated quality assurance program (QAP) to satisfy the requirements for the regulated work, any additional quality requirements imposed by DOE elements, and the requirements of this Order.

4. REQUIREMENTS.

a. General.

- (1) DOE elements must implement the quality assurance criteria in a manner sufficient to achieve adequate protection of the workers, the public, and the environment, taking into account the work to be performed and the associated hazards.

- (2) DOE elements must develop their QAPs by applying the quality assurance criteria specified in Paragraph 4b, using a graded approach.
- (3) DOE elements must consider the guidance on quality assurance provided in Paragraph 6 to develop and implement their QAPs.
- (4) DOE elements not presently in compliance with this Order must develop and implement a QAP within 90 days of the date of this Order. QAPs approved in accordance with DOE O 414.1 must be revised to address enhancements made by this Order.
- (5) The QAP must describe how the criteria will be satisfied.
- (6) DOE elements must identify, document, and use appropriate standards (consistent with the National Technology Transfer and Advancement Act, P.L. 104-113, and Office of Management and Budget Circular A-119), wherever applicable, to develop and implement QAPs.
- (7) The QAP must describe how the graded approach will be applied.
- (8) The QAP must discuss how it integrates and satisfies quality requirements or similar management system requirements (such as environmental or safety) from sources other than this Order (see DOE P 450.4).
- (9) DOE elements must respond to safety issues identified in Office of Oversight (EH-2) reports using a written corrective action plan (CAP). DOE elements must apply the SAFETY ISSUE CORRECTIVE ACTION PROCESS (see Attachment 2) for CAP development and implementation.

b. Quality Assurance Criteria.

- (1) Management.
 - (a) Criterion 1—Program.
 1. A written QAP must be developed, implemented, and maintained.
 2. The QAP must describe the organizational structure, functional responsibilities, levels of authority, and interfaces for those managing, performing, and assessing the work.
 3. The QAP must describe management processes, including planning, scheduling, and resource considerations.

(b) Criterion 2—Personnel Training and Qualification.

- 1 Personnel must be trained and qualified to ensure they are capable of performing their assigned work.
- 2 Personnel must be provided continuing training to ensure that job proficiency is maintained.

(c) Criterion 3—Quality Improvement.

- 1 Processes to detect and prevent quality problems must be established and implemented.
- 2 Items, services, and processes that do not meet established requirements must be identified, controlled, and corrected according to the importance of the problem and the work affected.
- 3 Correction must include identifying the causes of problems and working to prevent recurrence.
- 4 Item characteristics, process implementation, and other quality-related information must be reviewed and the data analyzed to identify items, services, and processes needing improvement.

(d) Criterion 4—Documents and Records.

- 1 Documents must be prepared, reviewed, approved, issued, used, and revised to prescribe processes, specify requirements, or establish design.
- 2 Records must be specified, prepared, reviewed, approved, and maintained.

(2) Performance.

(a) Criterion 5—Work Processes.

- 1 Work must be performed to established technical standards and administrative controls using approved instructions, procedures, or other appropriate means.
- 2 Items must be identified and controlled to ensure their proper use.
- 3 Items must be maintained to prevent their damage, loss, or deterioration.

- 4 Equipment used for process monitoring or data collection must be calibrated and maintained.

(b) Criterion 6—Design.

- 1 Items and processes must be designed using sound engineering/scientific principles and appropriate standards.
- 2 Design work, including changes, must incorporate applicable requirements and design bases.
- 3 Design interfaces must be identified and controlled.
- 4 The adequacy of design products must be verified or validated by individuals or groups other than those who performed the work.
- 5 Verification and validation work must be completed before approval and implementation of the design.

(c) Criterion 7—Procurement.

- 1 Procured items and services must meet established requirements and perform as specified.
- 2 Prospective suppliers must be evaluated and selected on the basis of specified criteria.
- 3 Processes to ensure that approved suppliers continue to provide acceptable items and services must be established and implemented.

(d) Criterion 8—Inspection and Acceptance Testing.

- 1 Inspection and testing of specified items, services, and processes must be conducted using established acceptance and performance criteria.
- 2 Equipment used for inspections and tests must be calibrated and maintained.

(3) Assessment.

(a) Criterion 9—Management Assessment.

- 1 Managers must assess their management processes.
- 2 Problems that hinder the organization from achieving its objectives must be identified and corrected.

(b) Criterion 10—Independent Assessment.

- 1 Independent assessments must be planned and conducted to measure item and service quality, to measure the adequacy of work performance, and to promote improvement.
- 2 The group performing independent assessments must have sufficient authority and freedom from the line to carry out its responsibilities.
- 3 Persons conducting independent assessments must be technically qualified and knowledgeable in the areas assessed.

5. RESPONSIBILITIES. Senior management must be responsible for QAP implementation, assessment, and improvement (see Paragraph 6.d.).

a. Deputy Secretary.

- (1) Serves as the Departmental focal point for quality assurance issues and quality problem resolution, and provides leadership for quality assurance implementation. Charters the Quality Assurance Working Group (QAWG) under the leadership of a chairperson who assists with these responsibilities. The QAWG Chairperson is responsible for leading a QAWG comprised of appointed senior managers or designees from DOE Headquarters elements, field elements, and DOE contractors that will—
 - (a) identify and resolve cross-cutting quality assurance issues within the Department;
 - (b) develop Departmental quality assurance positions and provide appropriate recommendations, advice, and counsel to the Deputy Secretary; and
 - (c) periodically report on the effectiveness of quality assurance policy implementation.
- (2) Resolves disputes concerning corrective actions for safety issues contained in Office of Oversight reports.

b. Secretarial Officers (SOs).

- (1) Ensure that Headquarters, field elements, and contractors implement this Order in an integrated manner and coordinate the resolution of quality issues among these organizations.

- (2) Develop, approve, and implement a QAP governing the work of their organizations in accordance with the requirements of Paragraph 4, as applicable. Identify the senior management position specifically assigned this responsibility.
 - (3) Provide direction and resources for implementing the requirements for work within their purview.
 - (4) Review and concur with field element QAPs. Review and approve new and revised contractor QAPs within their purview or delegate this authority to the relevant field element manager. QAPs must be reviewed and approved—or rejected—within 90 days of receipt.
 - (5) Perform management and independent assessments to evaluate the adequacy and implementation of their Headquarters element QAP and to improve organizational performance.
 - (6) Designate individual(s) to be responsible for bringing the following to the attention of the appropriate Contracting Officer:
 - (a) each procurement requiring application of the CRD (Attachment 1) (and 10 CFR 830.120, where applicable),
 - (b) requirements for flow down of provisions of the CRD to any subcontract or sub-award, and
 - (c) provisions of the CRD with which the contractor or subcontractor is to comply.
 - (7) Prepare a CAP to address safety issues (i.e., quality problems) identified by the Office of Oversight reports.
- c. Assistant Secretary for Environment, Safety and Health (EH-1), acting as DOE's independent element responsible for safety aspects relative to public and worker health and safety and environmental protection, has the following responsibilities in addition to those prescribed in Paragraph 5b.
- (1) Develop, promulgate, and maintain quality assurance policy, requirements, guides, and standards for DOE work.
 - (2) Provide advice and assistance (including QAP reviews) to DOE elements and contractors concerning implementation of this Order.

- (3) Provide a central point of contact for coordination within DOE and act as liaison with other agencies and groups in the development of quality assurance policy, standards, guidance, and requirements.
 - (4) Review proposed statutes (where appropriate), regulations, standards, DOE directives, and requirements for their application to and potential impact on DOE quality programs.
- d. Deputy Assistant Secretary for Oversight (EH-2), acting as the Department's independent element responsible for the oversight of environment, safety, and health, has the following responsibilities.
- (1) Assess and report to the Secretary of Energy on all aspects of safety related to implementation of this Order, including performance of the Secretarial Offices, field elements, and contractors.
 - (2) Review and comment on proposed quality assurance policy, regulations, standards, and requirements to assess their potential effects on the safety of operations at DOE facilities.
 - (3) Review and comment on proposed actions to correct safety issues identified in oversight reports.
- e. Field Element Managers.
- (1) Develop, approve, and implement a QAP governing the work of the field element in accordance with the requirements of Paragraph 4, as applicable. Identify the senior management position specifically assigned this responsibility. Submit the QAP to the Lead Program Secretarial Officer for review and concurrence.
 - (2) Review and, where delegated authority to do so, approve new and revised QAPs for contractors within their purview. QAPs must be reviewed and approved—or rejected—within 90 days of receipt from the contractor.
 - (3) Perform independent assessments of contractor organizations to evaluate the adequacy and implementation of their QAPs. Other suitable methods may be used in combination with independent assessments.
 - (4) Perform management and independent assessments to evaluate the adequacy and implementation of their Field Element QAP and to improve organizational performance. Perform independent assessments of corrective actions taken for safety issues identified by the Office of Oversight to verify effective implementation.

- (5) Prepare a CAP to address safety issues (i.e., quality problems) identified by the Office of Oversight.
 - f. Contracting Officers, based on the advice of the procurement request originator or other designated individual, must apply the provisions of the CRD to awards falling within the scope of this Order. Provisions must be incorporated in time for the contractors to comply with the requirements of Attachment 1.
6. REFERENCES. Guidance and responsibilities for implementing this Order are provided by the latest revision of the following:
- a. DOE G 414.1-2 (previously DOE G 830.120), QUALITY ASSURANCE MANAGEMENT SYSTEM GUIDE FOR USE WITH 10 CFR 830.120 AND DOE O 414.1;
 - b. DOE G 414.1-1, IMPLEMENTATION GUIDE FOR USE WITH INDEPENDENT AND MANAGEMENT ASSESSMENT REQUIREMENTS OF 10 CFR 830.120 AND DOE 5700.6C, QUALITY ASSURANCE;
 - c. DOE G 440.1-6, IMPLEMENTATION GUIDE FOR USE WITH SUSPECT/COUNTERFEIT ITEMS REQUIREMENTS OF DOE O 440.1, WORKER PROTECTION MANAGEMENT; 10 CFR 830.120; AND DOE 5700.6C, QUALITY ASSURANCE; and
 - d. DOE M 411.1-1, SAFETY MANAGEMENT FUNCTIONS, RESPONSIBILITIES, AND AUTHORITIES MANUAL.
7. DEFINITIONS.
- a. Assessment. The act of reviewing, evaluating, inspecting, testing, checking, surveillance, auditing, or otherwise determining and documenting whether items, processes, systems, or services meet specified requirements and are performing effectively.
 - b. Graded Approach. The process by which the level of detail in analyses, documentation, and actions necessary to comply with requirements is commensurate with—
 - the relative importance to safety, safeguards, and security;
 - the magnitude of any hazard involved;
 - the life-cycle stage of a facility;
 - the programmatic mission of a facility;
 - the particular characteristics of a facility; and
 - any other relevant factors.

- c. Item. An all-inclusive term used in place of any of the following: appurtenance, assembly, component, equipment, material, module, part, structure, subassembly, subsystem, system, unit, or support systems.
 - d. Quality. The condition achieved when an item, service, or process meets or exceeds the user's requirements and expectations.
 - e. Quality Assurance. All those actions that provide confidence that quality is achieved.
 - f. Quality Assurance Program. The overall program (management system) established to assign responsibilities and authorities, define policies and requirements, and provide for the performance and assessment of work.
 - g. Safety. An all-inclusive term used synonymously with environment, safety, and health to encompass protection of the public, the workers, and the environment.
 - h. Service. The performance of work, such as design, construction, fabrication, decontamination, environmental remediation, waste management, laboratory sample analysis, inspection, nondestructive examination/testing, environmental qualification, equipment qualification, repair, installation, or the like.
 - i. Work. The process of performing a defined task or activity; for example, research and development, operations, environmental remediation, maintenance and repair, administration, software development and use, inspection, safeguards and security, data collection, and analysis.
8. CONTACT. Questions concerning this Order should be addressed to Gustave E. Danielson, Office of Nuclear Safety Policy and Standards, 301-903-2954 or bud.danielson@eh.doe.gov.

BY ORDER OF THE SECRETARY OF ENERGY:



DAVID M. KLAUS
DIRECTOR OF MANAGEMENT
AND ADMINISTRATION

CONTRACTOR REQUIREMENTS DOCUMENT

DOE O 414.1A, QUALITY ASSURANCE

1. GENERAL REQUIREMENTS.

a. A contractor must accomplish the following.

- (1) Assign and identify the senior management position responsible for Quality Assurance Program (QAP) development, implementation, assessment, and improvement.
- (2) Implement the quality assurance criteria in a manner sufficient to achieve adequate protection of the workers, the public, and the environment, taking into account the work to be performed and the associated hazards.
- (3) Develop a QAP for the work as specified in its contract by applying the quality assurance criteria specified in Paragraph 2 below. The QAP must–
 - (a) discuss how the QA criteria will be satisfied;
 - (b) use a graded approach to apply the QA criteria;
 - (c) describe how the graded approach will be applied;
 - (d) integrate and satisfy quality requirements from sources other than Paragraph 2;
 - (e) integrate the QA criteria with the safety management system (SMS) description developed for 48 Code of Federal Regulations (CFR) 970.5204-2, or describe how the QA criteria will be applied to the SMS;
 - (f) describe how the QA criteria will be applied to subcontractors and suppliers.
- (4) Identify, document, and use appropriate standards (consistent with the National Technology Transfer and Advancement Act, P.L. 104-113, and Office of Management and Budget Circular A-119), wherever applicable, to develop and implement the QAP.
- (5) Determine the subcontractors and suppliers to whom the QA criteria will be applied.

- (6) Submit the QAP to the Department of Energy (DOE) for approval prior to starting work under the contract or as specified by DOE.
 - (a) QAPs approved in accordance with DOE O 414.1 must be revised to address enhancements made by this CRD. (see Paragraph 1b).
 - (b) The QAP will be regarded as approved by DOE 90 days after submittal, unless approved or rejected by DOE at an earlier date, and must include any modification made or directed by DOE.
 - (7) Implement the QAP as approved and modified by DOE.
- b. A contractor may, at any time, make changes to an approved QAP.
- (1) Changes made over the previous year must be submitted annually to DOE for review and approval.
 - (2) In the submittal, identify the changes, the reason for the changes, and the basis for concluding that the revised QAP continues to satisfy the requirements of this CRD.
 - (3) Changes made to correct spelling, punctuation, or other editorial items do not require explanation.
- c. Other Quality Requirements.
- (1) Some portions of DOE work are subject to regulation by quality assurance requirements from the Nuclear Regulatory Commission (NRC), an NRC Agreement State, the Environmental Protection Agency, DOE (10 CFR 830.120), or other government agencies. DOE O 414.1A applies to those portions of the work that are not so regulated.
 - (2) DOE elements may impose additional quality requirements and/or specific standards as necessary for certain types of work (e.g., the Office of Defense Programs nuclear weapons production standard, QC-1, or the Office of Civilian Radioactive Waste Management requirement, RW-0333P) to ensure that it meets their expectations, as well as those of DOE O 414.1A.
 - (3) DOE endorses the use of a single integrated QAP to satisfy requirements for the regulated work, any additional quality requirements imposed by DOE elements, and the requirements of this Order.
- d. Contractors must consider the guidance on quality assurance provided by the latest revision of the documents listed below in developing and implementing their QAPs:

- (1) DOE G 414.1-2 (previously DOE G 830.120), QUALITY ASSURANCE MANAGEMENT SYSTEM GUIDE FOR USE WITH 10 CFR 830.120 AND DOE O 414.1;
- (2) DOE G 414.1-1, IMPLEMENTATION GUIDE FOR USE WITH INDEPENDENT AND MANAGEMENT ASSESSMENT REQUIREMENTS OF 10 CFR 830.120 AND DOE 5700.6C, QUALITY ASSURANCE; and
- (3) DOE G 440.1-6, IMPLEMENTATION GUIDE FOR USE WITH SUSPECT/COUNTERFEIT ITEMS REQUIREMENTS OF DOE O 440.1, WORKER PROTECTION MANAGEMENT; 10 CFR 830.120.

2. QUALITY ASSURANCE CRITERIA.

a. Management.

- (1) Criterion 1—Program.
 - (a) A written QAP must be developed, implemented, and maintained.
 - (b) The QAP must describe the organizational structure, functional responsibilities, levels of authority, and interfaces for those managing, performing, and assessing the work.
 - (c) The QAP must describe the management processes, including planning, scheduling, and resource considerations.
- (2) Criterion 2—Personnel Training and Qualification.
 - (a) Personnel must be trained and qualified to ensure they are capable of performing their assigned work.
 - (b) Personnel must be provided continuing training to ensure that job proficiency is maintained.
- (3) Criterion 3—Quality Improvement.
 - (a) Processes to detect and prevent quality problems must be established and implemented.
 - (b) Items, services, and processes that do not meet established requirements must be identified, controlled, and corrected according to the importance of the problem and the work affected. Correction must include identifying the causes of problems and working to prevent recurrence.

- (c) Item characteristics, process implementation, and other quality-related information must be reviewed and the data analyzed to identify items, services, and processes needing improvement.
- (4) Criterion 4—Documents and Records.
 - (a) Documents must be prepared, reviewed, approved, issued, used, and revised to prescribe processes, specify requirements, or establish design.
 - (b) Records must be specified, prepared, reviewed, approved, and maintained.
- b. Performance.
 - (1) Criterion 5—Work Processes.
 - (a) Work must be performed to established technical standards and administrative controls, using approved instructions, procedures, or other appropriate means.
 - (b) Items must be identified and controlled to ensure their proper use.
 - (c) Items must be maintained to prevent their damage, loss, or deterioration.
 - (d) Equipment used for process monitoring or data collection must be calibrated and maintained.
 - (2) Criterion 6—Design.
 - (a) Items and processes must be designed using sound engineering/scientific principles and appropriate standards.
 - (b) Design work, including changes, must incorporate applicable requirements and design bases.
 - (c) Design interfaces must be identified and controlled.
 - (d) The adequacy of design products must be verified or validated by individuals or groups other than those who performed the work.
 - (e) Verification and validation work must be completed before approval and implementation of the design.
 - (3) Criterion 7—Procurement.

- (a) Procured items and services must meet established requirements and perform as specified.
 - (b) Prospective suppliers must be evaluated and selected on the basis of specified criteria.
 - (c) Processes to ensure that approved suppliers continue to provide acceptable items and services must be established and implemented.
- (4) Criterion 8—Inspection and Acceptance Testing.
- (a) Inspection and testing of specified items, services, and processes must be conducted using established acceptance and performance criteria.
 - (b) Equipment used for inspections and tests must be calibrated and maintained.
- c. Assessment.
- (1) Criterion 9—Management Assessment.
- (a) Managers must assess their management processes.
 - (b) Problems that hinder the organization from achieving its objectives must be identified and corrected.
- (2) Criterion 10—Independent Assessment.
- (a) Independent assessments must be planned and conducted to measure item and service quality, to measure the adequacy of work performance, and to promote improvement.
 - (b) The group performing independent assessments must have sufficient authority and freedom from the line to carry out its responsibilities.
 - (c) Persons conducting independent assessments must be technically qualified and knowledgeable in the areas assessed.

ATTACHMENT 2

SAFETY ISSUE CORRECTIVE ACTION PROCESS **SUPPLEMENTAL QUALITY REQUIREMENTS** **FOR DOE ELEMENTS**

1. **OBJECTIVE.** To establish a uniform process and responsibilities that apply DOE quality assurance criteria to the resolution of safety issues identified by the Office of Oversight.
2. **GENERAL REQUIREMENTS.**
 - a. DOE elements must correct safety issues (i.e., quality problems) identified by the Office of Oversight according to the importance of the problem and the work affected.
 - b. DOE elements must develop and implement a corrective action plan (CAP) for safety issues identified by the Office of Oversight.
 - c. DOE Field Element Managers must ensure that contractors within their purview implement the approved CAP, as appropriate.
 - d. DOE elements must apply this process to safety issue identification, CAP development, and dispute resolution.
 - e. DOE elements must use the DOE Corrective Action Tracking System (CATS) for CAP tracking and status reporting. (See website <http://tis.eh.doe.gov/portal/ism/CATS.htm>.)
3. **SAFETY ISSUE IDENTIFICATION AND RESOLUTION PROCESS.**
 - a. **Safety Issue Identification** The Office of Oversight must perform the following.
 - (1) Conduct an independent assessment of safety management at a specific DOE site or program in accordance with Office of Oversight protocols.
 - (2) Describe each identified safety issue clearly in the assessment report. Safety issues will express the specific nature of the condition in a clear, concise, and direct manner that will allow line management to translate it into corrective actions. As appropriate, safety issues are tied to a non-conformance with the relevant ES&H requirements or DOE directives (e.g., specific DOE Orders, regulatory requirements, DEAR provisions, or DOE P 450.4).
 - (3) Verify the factual accuracy of the reported assessment findings with representatives of the assessed organizations.

- (4) Submit the formal approved assessment report simultaneously to the Field Element Manager and applicable line Program Secretarial Officer (PSO).
 - (5) Complete the "Report" and "Issue information" data fields in the DOE CATS.
- b. Corrective Action Plan Development. The Cognizant Line Manager (CLM), in consultation with the applicable PSO, must prepare the CAP to address the safety issues raised in the formal oversight assessment report by performing the following.
- (1) The CLM prepares a single, comprehensive CAP to address the safety issues contained in a single assessment report.
 - (2) The CAP must include actions to correct the safety issues (e.g., clear variance from established requirements), determine the causes of the issue, and prevent recurrence of the issue.
 - (3) The CAP must describe the basis for the disposition of each identified safety issue. The CLM may determine that no action will be taken in response to a given issue. In this case, the CAP must describe the basis for this determination, demonstrating how safety will be maintained.
 - (4) The CAP must indicate the following for each safety issue requiring specific corrective actions:
 - responsible individual,
 - date of initiation,
 - expected date of completion,
 - how it will be tracked to closure, and
 - mechanism for independent verification of closure to ensure that the actions are appropriate to prevent recurrence.
- c. Corrective Action Plan Approval. The applicable PSO, or designee, must approve the CAP within 60 days of the issuance of the formal independent oversight assessment report.
- (1) The PSO may delegate this authority to the CLM or other designee. The PSO has the ultimate approval authority for CAPs.
 - (2) The CLM must complete the corrective action data fields for the approved CAP in the DOE CATS.
- d. CAP Review. The Office of Oversight must review the CAP by performing the following within 30 days of the CAP approval.

- (1) Determine if the CAP provides timely or adequate corrective actions for all or part of the identified safety issues.
 - (2) Provide comments and their basis to the CLM and PSO when it determines that the CAP does not provide timely or adequate corrective actions.
- e. CAP Comment Resolution. The CLM, in consultation with the PSO, must perform the following to address the Office of Oversight comments.
- (1) Determine if a CAP revision is needed.
 - (2) Revise the CAP appropriately.
 - (3) Inform the Office of Oversight of how their comments were dispositioned.
- f. Dispute Resolution. The Office of Oversight may elevate their concerns regarding disposition of its comments for dispute resolution in accordance with Paragraph 4.
- g. Deputy Secretary Briefing. The applicable PSO must provide an opportunity for the Deputy Secretary (Department's Chief Operating Officer) or designee to be briefed by the CLM, the Office of Oversight, and the Assistant Secretary for EH. The briefing may include identified safety issues, the CAP and planned corrective actions, and any associated resource issues.
- h. CAP Implementation. The CLM must implement the approved CAP and complete the associated corrective actions.
- (1) The CLM must track and report the implementation status of corrective actions. The status must be reported in the DOE CATS on a monthly basis (minimum) until the safety issue is closed.
 - (2) The Office of Oversight may review the timeliness and adequacy of ongoing implementation of identified corrective actions as part of routine or for-cause assessments. Unsatisfactory progress must be reported to the CLM and PSO.
- i. CAP Verification. The CLM must coordinate with the field organization, headquarters line organization, and PSO to conduct an independent assessment of all closed corrective actions. This verification must be performed by persons with sufficient independence from those who performed the work described in the CAP.
- j. Safety Issue Follow-up. The Office of Oversight may review completed corrective actions for adequacy in resolving the original safety issue. The Office of Oversight must identify a new safety issue for resolution when the CAP has not resolved the original safety issue.

4. CORRECTIVE ACTION PLAN DISPUTE RESOLUTION PROCESS.

- a. Disputes over the CAP or its implementation (such as timeliness or adequacy) must be resolved at the lowest possible organizational level. The organization that disagrees with the disposition of a given issue may elevate the dispute for timely resolution.
- b. The organization that disagrees with the disposition of a given issue must elevate the dispute in a step-wise manner through the management hierarchy.
- c. The dispute must be raised via a deliberate and timely dispute resolution process that provides each party with equal opportunity for input and a subsequent opportunity to appeal decisions up to the Secretary of Energy, if necessary.

SEPARATION

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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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1. INTRODUCTION

The Department of Energy (DOE) is committed to a management system approach to ensure work is performed in a manner which 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 -78]. Among these guiding principles are the responsibility of DOE line management¹ for safety² 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 responsibilities for any delegations of authorities 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.

2. OBJECTIVE

The purpose of the corporate-level and lower-tier documents is to define clearly Department functions, responsibilities, and authorities for safety management. In achieving this objective, this Manual is a mechanism for implementing the Department’s guiding principles established in DOE P 450.4 and the safety management functions outlined in DOE P 411.1. DOE corporate safety functions 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 delegations 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) documents, which describe further delegations of safety authority within each of the Secretarial Offices, are not.

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- 1 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.
 - 2 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.

As stated in DOE P 411.1, each line, support, oversight, and enforcement organization within the Department is responsible for establishing and documenting how the specific functions and responsibilities assigned to them 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 their 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 integrated safety management 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 actual work practices. Functions, responsibilities, and authorities below the corporate level, such as responsibilities for specific disciplines and/or functional areas, are incorporated or dispositioned, as appropriate, in the organizational documents required by DOE P 411.1. 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 organizations performing safety management functions, except the Naval Nuclear Propulsion Program, the Power Marketing Administrations, and privatized activities for which these functions are not included in the contract. Program offices, field elements, and the Office of Environment, Safety and Health (EH) are to implement this Manual through the creation and maintenance of lower-tier FRA documents, as required by DOE P 411.1.

In accordance with DOE M 251.1-1A, DIRECTIVES SYSTEM MANUAL, this Manual will be reviewed every 2 years and updated as necessary by EH.

4. HOW THE DEPARTMENT INTENDS TO DO WORK

DOE P 450.4 identifies five core functions of the Department's integrated safety management system. Figure 1 illustrates the flow and relationship of these functions.³ 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.

3 Figure 1 is from Figure 3 of DOE G 450.4-1A, INTEGRATED SAFETY MANAGEMENT SYSTEM GUIDE for use with DOE P 450.4, SAFETY MANAGEMENT SYSTEM POLICY, AND DEAR SAFETY MANAGEMENT SYSTEM CONTRACT CLAUSES, Volume 1: Guidance.

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 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.

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-

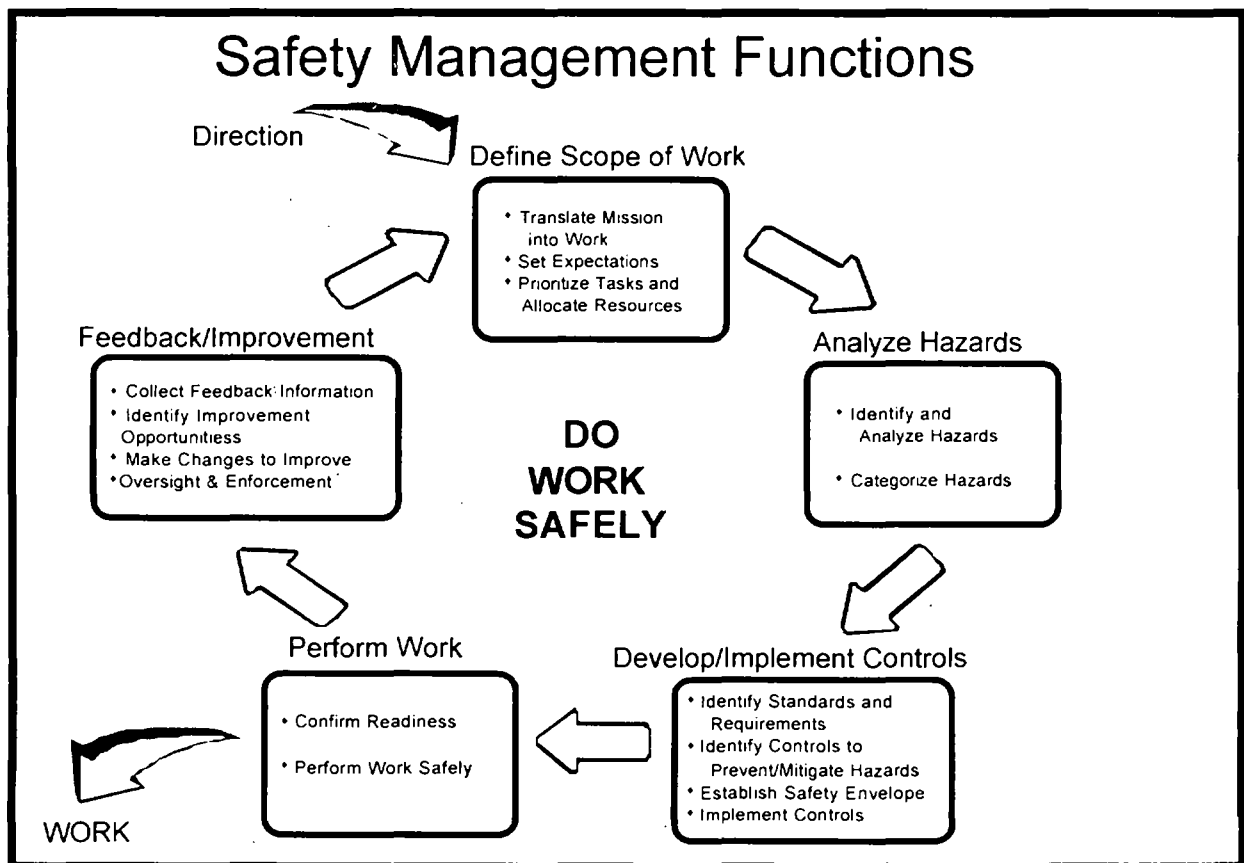


Figure 1. Safety management functions.

owned, contractor-operated (GOCO) facilities, DOE line management flows from the Secretary through the program offices to the field element, and then to DOE's management and operating contractors/integrated management contractors. [At Government-owned, Government-operated (GOGO) facilities, Department employees are responsible for operating the facility and performing the work, and contractors are not involved. 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 single Lead Program Secretarial Office (LPSO) is responsible for management overview of field-office-wide environment, safety, and health (ES&H) and implementation of policy promulgated by Headquarters staff and support organizations at its assigned field elements. When a dedicated program-specific facility or laboratory is present on a site, a single PSO is assigned as the Cognizant Secretarial Officer (CSO) for that facility or laboratory and is accountable for the 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 of ES&H activities. (The Office of Independent Oversight and Performance Assurance, and the Office of Security and Emergency Operations, which are within the Office of the Assistant Secretary for Nonproliferation and National Security, oversee security and emergency management activities.)
- **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.

- **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.

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 specific nuclear, source, and by-product materials is provided in Section 161, General Provisions, of the Atomic Energy Act and in Sections 105 and 501 of the Department of Energy Organization Act.

Section 161.b of the Atomic Energy Act 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 Atomic Energy Act, 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 Department of Energy Organization Act 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 (ERA), sections 103, 104, 105, and 201(f).

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 to report to DOE management on the status of safety and environmental protection as seen by those not associated with mission accomplishment. EH also performs analyses of ES&H performance, maintains safety data systems for the Department, advises the Secretary on all issues relevant to safety, and provides subject matter expertise on various topics. For nuclear activities, EH is responsible for the enforcement of nuclear safety requirements through its Office of Enforcement and Investigations, EH-10. GC is responsible for interpreting the legal aspects of nuclear safety requirements.

Three 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 integrated safety management, and to oversee the effectiveness of the DOE employee concerns program. The Field Management Council was established to ensure 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 responsibilities of these committees regarding safety appear in section 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 regulation. For such activities, the responsibilities and authorities of the external organizations are defined in laws, regulations, and memorandums of understanding, which consequently supersede 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.

6. DIRECTION FROM MULTIPLE PROGRAM OFFICES

The CSO is responsible for sitewide operational oversight on behalf of all programs having work performed at its sites. Non-lead PSOs 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 offices. Any conflict between a PSO and the LPSO, or among PSOs, concerning direction to the field is to be resolved by the Field Management Council.

Policies and guidance developed by the staff and support offices are reviewed by the Field Management Council and, if approved, passed to the LPSOs for implementation. It is the responsibility of the Field Management Council 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. Although the authority for executing specific functions can be delegated down the line to the individual who actually performs the function, the responsibility for that function cannot be delegated. Designees are to be held accountable for impropriety or dereliction in the use of delegated authority. In particular, contractors operating DOE facilities are accountable for performing their activities in a safe manner, and DOE line management is responsible for directing and monitoring the performance of those contractors to ensure the safety of their employees and the public and for protecting the environment. Delegations of authority for specific functions that differ among individual DOE organizations cannot be specified in this Manual.

Section 9 assigns responsibilities and authorities for specific corporate-level safety functions to DOE officials. These authorities may be delegated unless delegation is prohibited by regulation or other obligation that specifically prohibits delegating this function. Authority may be delegated by means of DOE directives, mission statements or memorandums, and, within an organization, by that organization's FRA document. Records of 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 does not relieve the delegating officer of responsibility for the outcomes of the exercise of that authority. Delegation of approval authority 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.

- a. All delegations of authority must be in writing and must be provided to the designee. This document must establish a clear understanding between the delegating authority and the designee 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 between PSOs and FEMs must be documented in the PSO and FEM FRA documents.
- d. Verbal delegations must not be used unless covered by a written delegation (e.g., that the Deputy Manager assumes authority whenever the Manager is on travel).
- e. 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.
- f. Permanent delegations are in effect until rescinded in writing by the delegating official. Temporary delegations specify when authority is to be terminated.
- g. When a DOE signature is required, the signing official must have written authority.

8. SECRETARIAL OFFICE AND FIELD ELEMENT FRA DOCUMENTS

Each Headquarters and field office organization 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 delegated to or from another organization. The PSO FRA documents must capture all PSO 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 by DOE personnel 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. FEMs must ensure that their safety management functions are aligned with those directives that are in the contracts, regardless of whether the directives are current or canceled. 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 the FEM is described in Section 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 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 to sustain it as a living document and must identify an organizational element or position responsible for maintaining the document and its interfaces with other organizations.

9. DEPARTMENT SAFETY MANAGEMENT FUNCTIONS, RESPONSIBILITIES, AND AUTHORITIES

9.1 Provide Direction

DOE organizations responsible for functions relating to safety management include Headquarters and field line management and support organizations. Each Department 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 Department-wide objectives. In general, PSOs are responsible for defining and communicating to the FEMs the program's mission, objectives, high-level parameters (performance measures), and expectations. 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.

Secretarial Safety Council Responsibilities:

- a. Provide DOE with leadership and guidance to meet integrated safety management targets.
- b. Develop and maintain performance standards that will be used to hold Federal personnel accountable for integrated safety management implementation.
- c. Ensure that DOE has a viable and effective employee concerns program.

9.1.1 DOE Strategic Plans, Including Mission Statements

Secretary of Energy Responsibilities:

Prepare and approve the DOE strategic plan and mission statement.

Deputy Secretary Responsibilities:

Serve as Chief Operating Officer of the Department.

Secretarial Officers Responsibilities:

Provide input to and implement the provisions of the Secretary's strategic plan, including the DOE mission statement.

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:

- a. Review and provide input to program guidance developed by the PSO.
- b. Implement program guidance.

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.

FEM Responsibilities:

Participate in preparation of the proposed budget and provide input to PSOs 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 DOE budget.

9.1.4.2 Budget for environment, health and safety infrastructure

CSO Responsibilities:

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

LPSO Principal Deputy for Operations Responsibilities:

Assist the LPSO in managing operational functions and activities.

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 PSOs and the LPSO on the adequacy of the proposal to support landlord activities, safety initiatives, and 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.⁴

The Federal Technical Capability Panel has the responsibility for overseeing the implementation of the Senior Technical Safety Manager and Facility Representative programs.

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. 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:

Provide direction and oversight for the Federal Technical Capability Panel.

⁴ 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."

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.

Office of the Assistant Secretary for Environmental Management and Office of the Assistant Secretary for Defense Programs Responsibilities:

Recruit, maintain, and support the DOE Core Technical Group of subject matter experts.

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 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. (See DOE G 120.1-5, GUIDELINES FOR PERFORMANCE MEASUREMENT.)

The following subsections describe the various directives used within DOE 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; for the application of Department directives to contractors, see 48 CFR 5204-78, 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 DOE Policies, Orders, Notices, Manuals, Guides, and Page Changes. Authority to approve and issue directives and exemptions to their requirements is delegated as outlined in DOE O 251.1A and DOE M 251.1-1A.

Chief Operating Officer Responsibilities:

- a. As chairman of the Field Management Council review and approve Directives Management Documents (DMDs) prepared by the Office of Primary Interest, for all directives affecting the field operations and more than one PSO.
- b. As chairman of the Field Management Council, review and approve all staff and support office directives affecting the field operations and more than one PSO, following completion of directives coordination per the Department's Directives Management Process (see DOE M 251.1-1).

Office of Primary Interest (OPI) Responsibilities:

- a. Prepare draft directives (i.e., Policies, Orders, Notices, Manuals, Guides, and Page Changes) using DOE resources as appropriate to ensure development of a quality product consistent with DOE missions. Following coordination with other offices in accordance with DOE's Directives Management Process (see DOE M 251.1-1A), submit those final draft directives that have the potential to affect field operations and more than one PSO to the Field Management Council for review. For submission to the Field Management Council, a Deputy Assistant Secretary 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-1 for issuance.
- d. Designate a Directive Development Manager to coordinate review of directives (see DOE M 251.1-1A)

- e. Identify the program offices that could be affected and coordinate with the PSO for that program office 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 EH, when not the OPI) 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 DOE and EH missions.
- e. Review and approve, or deny with reason, applications for exemptions (see DOE M 251.1-1A).

FEM Responsibilities:

- a. Identify the directives or portions of directives applicable to the field organization and incorporate these requirements into the management system. Apply to the cognizant PSO for exemptions to provisions of directives for Hazard Category 1 nuclear facilities. For other facilities, 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:

- a. 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 (1) statutory and legal requirements and (2) Federal ES&H policy.

General Counsel Responsibilities:

Provide advice and interpretation concerning legal aspects of the directives system. Review and comment on proposed Orders, Notices, Manual, Guides, and Page Changes for legal sufficiency, including compliance with (1) rulemaking 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:

- a. Advise OPIs as to how to proceed on proposed policy documents.
- b. Review policy summaries submitted by the Office of Field Integration.
- c. Coordinate and issue Department Policies, Orders, Notices, Manuals, Guides, and Page Changes 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 established consensus standards whenever possible. DOE Technical Standards are to be developed or used only if no appropriate non-DOE standard exists.

OPI Responsibilities:

- a. Identify established consensus standards for use by DOE or document the need for a DOE Technical Standard. Approve final DOE Technical Standards and send them to the DOE Technical Standards Manager for issuance.
- b. Prepare draft DOE Technical Standards that are consistent with both Department mission and P.L. 104-113.

- c. Coordinate draft DOE Technical Standards in accordance with directions from the DOE Technical Standards Program.

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.
- d. Ensure that resources used in implementing rules are appropriate to provide reasonable assurance of adequate protection in the operation of nuclear facilities.

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 safety rules of general applicability in accordance with the provisions of the Administrative Procedure Act and other generally applicable procedural requirements and policies. Develop associated guidance documents. Department resources used in implementing rules must be appropriate to provide reasonable assurance of adequate protection in the operation of nuclear facilities.

- b. Ensure safety rules are consistent with P.L. 104-113 and OMB A-119.
- c. Submit final draft rules to the Office of the General Counsel for coordination with the Secretary of Energy, OMB, and the Federal Register.
- d. Revise rules when necessary and interpret their technical requirements.
- e. Interact with other Federal agencies to ensure rules are consistent with (1) statutory and legal requirements and (2) Federal ES&H policies.
- f. Coordinate proposed rules with all affected DOE organizations and disposition any comments received from them.
- g. Develop rules as necessary on ES&H issues and coordinate for comment with affected program offices and FEMs.
- h. Ensure that DEAR revisions have no negative safety impact.

Office of the General Counsel Responsibilities:

- a. Ensure 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 by 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 technical 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. In accordance with contract regulations, prepare contracts that establish clear expectations and performance measures for work performance.
- b. Ensure contracts define the actions necessary to meet site mission and safety expectations.
- c. Monitor contractor performance and assess whether performance expectations have been met.

Contracting Officer Responsibilities:

- a. Approve and issue contracts that meet contract regulations and provide clear expectations and performance measures to contractors regarding the 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 DOE staff regarding contract issues and performance expectations.

EH Responsibilities:

Review and comment on proposed DEAR provisions affecting ES&H.

9.2.2.5 Organization FRA Documents

Section 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.

9.2.2.6 Approval 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 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 on the team's recommendation, approved by the Contracting Officer.

Deputy Secretary Responsibilities:

Approve selection of senior technical safety managers who will lead safety management system description reviews.

PSO, EH, and FEM Responsibilities:

Jointly develop and submit a list of highly qualified senior technical safety managers to the Deputy Secretary for use in forming review teams.

FEM Responsibilities:

Ensure that contractors describe and document their safety management systems.

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 system descriptions and revisions (48 CFR 970.5204-2(e))

Federal Technical Capabilities Panel Responsibilities:

- a. Oversee the implementation of the DOE Senior Technical Safety Manager Program.
- b. Perform periodic assessments of the effectiveness of the recruitment, development, deployment, and retention of technically capable DOE personnel.

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 DEAR; 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 used appropriately.

9.2.4 Prioritize Tasks

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

CSO Responsibilities:

Review the safety management system and provide guidance to 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.

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.

Hazards analyses are a very important component of safety analysis reports. (See Section 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: for example, Health and Safety Plans (29 CFR 1910.120) and Chemical Hygiene Plans (29 CFR 1910.1450).

9.3.1 Identify and Analyze Hazards

FEM Responsibilities:

Ensure that the analysis provided by the contractor properly covers the hazards associated with the work and provides sufficient information for the selection of safety standards and controls, or, for GOGO facilities, supply such an analysis.

LPSO Responsibilities:

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

EH Responsibilities:

- a. Monitor and provide technical support on hazard identification and analysis activities, when requested by a PSO or FEM or directed by the Secretary or the Deputy or Under Secretaries, to ensure they are sufficient to facilitate selection of the appropriate safety standards and controls.
- b. Provide guidance and interpretation of requirements for all DOE elements on hazard analyses.
- c. Review and comment on hazard analyses as part of EH's oversight function, or as requested by line management or directed by the Secretary.

9.3.2 Categorize Facility/Activity Based on the Hazards

CSO Responsibilities:

Approve final facility hazard categorization for nuclear facilities, where this authority has not been delegated. Monitor the FEM's program for hazard categorization of facilities and activities.

FEM Responsibilities:

Concur on facility/activity hazard categorization level based on input from DOE line managers or contractors regarding the type and amounts of hazards.

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

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directives included in contractual terms and conditions unless a specific exemption to these requirements

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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 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. Work cooperatively with program personnel and other requirements personnel to identify requirements in the directive system applicable to a contract, to develop a list of applicable requirements, and provide this list to the contracting officer for inclusion in the contract.

Contracting Officer:

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 delegate it. Where 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) authorization bases for nuclear facilities categorized as Hazard Category 2 or below, accelerators, and non-nuclear facilities.
- c. Ensure that the requirements are consistent with budget and policy for each facility.

EH Responsibilities:

Review and comment on the authorization basis, associated safety documentation, and management systems to develop and maintain authorization bases as part of EH's oversight function, or as requested by line management or directed by the Secretary.

FEM Responsibilities:

- a. Direct the contractor to propose site-/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 on the complexity and hazards associated with the work.
- d. Ensure that an authorization agreement is agreed-upon by the contractor and DOE for Hazard Category 3 and below facilities for which it has been determined that an authorization agreement is required.
- e. Review (1) the specific requirements to be included in contracts, (2) authorization agreements, (3) safety documentation, and (4) authorization bases, and approve where this authority has been delegated.
- f. Work cooperatively with program personnel and other requirements personnel to identify requirements in the directive system applicable to a contract, to develop a list of applicable requirements, and provide this list to the contracting officer for inclusion in the contract.

Contracting Officer:

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.

9.4.1.4 Exemptions from Requirements in 10 CFR Parts 830 and 835

Exemptions from the requirements of the nuclear safety management rules 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.

CSO Responsibilities:

- a. Approve 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 disposition any comments received.

FEM Responsibilities:

Review and provide recommendations to PSOs 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 requests for exemptions from the requirements of 10 CFR Part 835 as authorized by the provisions of 10 CFR Part 820, Subpart E. This authority may not be delegated.
- c. Disposition any comments received on proposed exemptions to 10 CFR Parts 830 and 835.

Office of the General Counsel 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 PSOs 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 Nuclear safety rule implementation plans, programs, and procedures

Most DOE nuclear safety rules require contractors to develop implementation plans to be approved by DOE. Guidance for the preparation, review, and approval of nuclear safety rule implementation plans is provided in DOE-STD-1082-94, *Preparation, Review, and Approval of Implementation Plans for Nuclear Safety Requirements*. This Standard describes normal practice, but is not a requirement; other procedures may be documented in lower-tier FRA documents.

CSO Responsibilities:

- a. Approve nuclear safety rule implementation plans, programs, and procedures where DOE approval is required.
- b. Respond to FEM or EH comments.

FEM Responsibilities:

- a. Review the nuclear safety implementation plans prepared by the contractor for compliance with the requirements of 10 CFR Parts 830 and 835.
- b. If not delegated approval authority, send recommendation for approval to the PSO with concurrence or comments. Respond to PSO or EH comments.
- c. Transmit approvals of implementation plans from PSOs (or designees) to contractor.
- d. Provide line management oversight and ensure contractor execution of nuclear safety rule implementation plans.

EH Responsibilities:

Review and comment on implementation plans as part of EH's oversight function, or as requested by line management or directed by the Secretary.

9.4.2 Identify Controls to Prevent and Mitigate Hazards

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

EH Responsibilities:

Review and comment on the adequacy of controls as part of EH's oversight function, or as requested by line management or directed by the Secretary.

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.

FEM Responsibilities:

- a. Direct the contractor to prepare documentation for controls for the prevention and mitigation of 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.

9.4.2.2 Hazard Category 2 and 3 and below nuclear facilities and non-nuclear facilitiesCSO Responsibilities:

Review documentation for controls for selected facilities (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. Review the adequacy of the controls and their documentation.
- b. Provide line management oversight and ensure the implementation of hazards mitigation programs and controls.

9.4.3 Establish Safety Basis

Details of safety documentation requirements are to be found in DOE 5480.22, TECHNICAL SAFETY REQUIREMENTS, and DOE 5480.23, NUCLEAR SAFETY ANALYSIS REPORTS.

CSO Responsibilities:

Approve the basis for authorizing operation and the associated safety documentation for Hazard Category 1 nuclear facilities. This authority may be delegated to the FEM.

9.4.3.1 Safety documentation/authorization basis for Hazard Category 1 nuclear facilitiesCSO Responsibilities:

Approve the authorization basis and associated safety documentation. The CSO may delegate this authority to a Headquarters program line manager or to the FEM.

FEM Responsibilities:

Direct preparation of the authorization basis and associated safety documentation and oversee implementation by the contractor. Approve when delegated the authority by the CSO.

EH Responsibilities:

Review and comment on the authorization basis, associated safety documentation, and management systems to develop and maintain authorization bases as part of EH's oversight function, or as requested by line management or directed by the Secretary.

9.4.3.2 Safety documentation/authorization basis for Hazard Category 2 and below nuclear facilities and accelerators⁵

CSO Responsibilities:

Approve the safety documentation and authorization bases or delegate this authority to the FEM.

FEM Responsibilities:

Direct preparation of the authorization basis and associated safety documentation. Approve these documents, except where the authority to do so has not been delegated, and oversee implementation by the contractor.

EH Responsibilities:

Review and comment on the authorization basis and associated safety documentation as requested or directed.

9.4.3.3 Authorization protocols

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

Authorization agreements specify contractually binding commitments relating to design, operation, 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 the work and the associated hazards.

⁵ Accelerators not excluded under paragraph 3c of DOE O 420.2, SAFETY OF ACCELERATOR FACILITIES.

CSO Responsibilities:

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

Head of Contracting Activities Responsibilities:

- a. Determine the appropriate protocol based on work and hazard.
- b. Append the approved authorization agreement to the affected contract or modify the contract to contain its provisions.

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 the DOE O 452 series directives must be met.

CSO Responsibilities:

Monitor the FEM oversight of the contractor's controls processes.

FEM Responsibilities:

Monitor the proper implementation of controls, including contractor processes for unreviewed safety questions and configuration management.

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 for proceeding from any reasonably foreseeable state of operation toward safe shutdown.

Although at GOCO facilities DOE personnel do not directly perform the work, DOE must be aware of, and contribute to, the conditions under which work is performed. DOE must be able to recognize and respond to significant enhancements or detriments in the work environment. 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 owner of the facilities and trustee of the Federal and public interests. DOE is responsible for assessing 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.

EH Responsibilities:

Maintain the Federal Employee Occupational Safety and Health program for DOE.

9.5.1 Confirm Readiness

Facility Representative Responsibilities:

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

EH Responsibilities:

Shut down work through 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.

9.5.1.1 Operational readiness reviews

Approval of operational readiness reviews occurs with startup authorization.

FEM Responsibilities:

Ensure that the operational readiness review is conducted by an operational readiness review team in accordance with DOE O 425.1A, STARTUP AND RESTART OF NUCLEAR FACILITIES.

9.5.1.2 Startup authorization for nuclear facilities

Guidance on the delegation of startup and restart authority for nuclear facilities is outlined in Table 1 of DOE-STD-3006-95, *Planning and Conduct of Operational Readiness Reviews*. This table describes normal practice, but is not a requirement; other delegation authority may be documented in lower-tier FRA documents.

9.5.1.3 Startup authorization for non-nuclear facilities

Same as for Hazard Category 3 nuclear facilities, except that a readiness assessment may be performed instead of an operational readiness review. 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, that processes are in place for safely conducting operations, and that there is appropriate day-to-day operational oversight of contractor activities.

LPSO/CSO Responsibilities:

Ensure implementation of safety management systems, Facility Representative programs, and performance measures to provide adequate protection of the worker, the public, and the environment and adequate allocation of resources. (See DOE P 450.5, LINE ENVIRONMENT, SAFETY AND HEALTH OVERSIGHT.)

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:

Provide guidance and assist in the identification of DOE requirements.

9.5.3 Quality Assurance

Quality control programs in the nuclear weapons program are distinct from DOE-wide quality assurance programs and are not considered here.

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

Deputy Secretary Responsibilities:

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

Secretarial Officer Responsibilities:

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

EH Responsibilities:

Ensure promulgation of quality assurance policy, perform program evaluation and oversight, and coordinate quality assurance policy, both internal and external to DOE.

FEM Responsibilities:

- a. Review and approve contractors' quality assurance programs.
- b. Ensure that contractors implement quality assurance programs.

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 select a method of avoiding 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 the safety, quality of outcome, and efficiency of the operation.

The general feedback and improvement process consists of the following steps (see "Implementation Plan for Defense Nuclear Facilities Safety Board Recommendation 98-1," 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 to ensure timely and adequate resolution.
- d. Close issues. Cognizant line managers complete corrective actions and verify completion. Issues are closed when a review indicates that the original issue has been effectively resolved by the actions taken.

9.6.1 Generation, Collection, and Dissemination of Information

Line sources of feedback include the following:

- a. quality assurance programs (DOE O 414.1, DOE G 414.1-1);
- b. self-assessment programs (DOE P 450.5);
- c. occurrence reporting (DOE O 232.1, DOE M 232.1-1A);
- d. accident investigations (DOE O 225.1-1A, DOE G 225.1-1);
- e. ES&H reporting (DOE O 231.1);
- f. performance indicators and measures (DOE O 210.1, DOE G 120.1);
- g. lessons learned;
- h. Employee Concerns Program (DOE O 442.1); and
- i. other assessment (e.g., for-cause, vulnerabilities).

Oversight and Enforcement sources of feedback include the following:

- a. line oversight (DOE P 450.5);
- b. independent oversight [DOE O 414.1-1A, Office of the Deputy Assistant Secretary for Oversight (EH-2) protocols];
- c. Price-Anderson Amendments Act enforcement (HDBK-1085-95);
- d. external safety oversight (DNFSB, DOE M 140.1-1A); and
- e. external regulatory actions (EPA, State regulatory agencies).

9.6.1.1 Lessons Learned Program

PSO Responsibilities:

- a. Implement a lessons-learned program and remain cognizant of information likely to be useful in improving the performance of the programs under the office's direction.
- b. Collect information for use in this program from assessments of contractor and field element operations.

FEM Responsibilities:

- a. Direct contractors to develop a lessons-learned program and monitor its implementation.
- b. Participate in DOE-wide sharing of lessons learned.
- c. Conduct assessments of site/facility performance on contractor's program.

9.6.1.2 Occurrence Reporting and Processing System (ORPS)

CSO Responsibilities:

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

Facility Representative Responsibilities:

The FEM may further delegate authority for approving off-normal reports to the Facility Representative.

Program Manager Responsibilities:

Approve ORPS reports, where this authority has been delegated to the Headquarters program manager. (See DOE M 232.1-1A, OCCURRENCE REPORTING AND PROCESSING OF OPERATIONS INFORMATION, paragraph 4.5.)

FEM Responsibilities:

- a. Direct contractors to report occurrences on the ORPS. Review reports and approve proposed corrective actions, where authority is delegated, or recommend approval decision to PSO.
- b. Review ORPS reports from all sites to detect potential improvements and means of averting occurrences.
- c. If approval authority for off-normal 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 the ORPS. Prepare and disseminate information obtained from analysis of this information.
- b. Develop requirements and guidance for occurrence reporting. 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 system for ES&H reporting requirements. Prepare and disseminate information obtained from the analysis of this information.
- b. Oversee ES&H performance and identify needed improvements to PSOs, 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 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:

EH-2 submits its formal assessment reports to the cognizant line manager(s) of the organization assessed and to the PSO(s) and LPSO to which that organization reports. The cognizant line manager, in cooperation with the PSO(s) and LPSO, prepares a corrective action plan (see paragraph 9.6.1). EH-2 reviews and provides comments on the corrective action plan to the PSO(s), LPSO, and cognizant manager(s).

9.6.1.5 Accident Investigations

The responsibilities and procedures for accident investigations are covered in detail in DOE O 225.1A. ACCIDENT INVESTIGATIONS.

PSO Responsibilities:

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 Under Secretary to thoroughly review the causes of the event, corrective action plans, and the effectiveness of the integrated safety management at the site at which the event occurred.

FEM Responsibilities:

Participate in meetings among the PSOs, Secretary, and Deputy Secretary, and Under Secretary that are held to review serious accidents.

EH Responsibilities (EH-2):

Appoint Type A Accident Investigation Boards, except where delegated, and review investigation reports before their acceptance.

9.6.2 Make Changes to ImproveAll DOE Element Responsibilities:

All DOE elements are accountable for becoming and remaining cognizant of all relevant sources of information bearing on 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.

9.6.3 Oversight and Enforcement**9.6.3.1 Line management oversight**CSO Responsibilities:

Monitor field element and contractor performance by reviewing information provided by the field elements, EH, 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.

FEM Responsibilities:

- a. Perform management assessment of contractors (and GOGO operations) to evaluate their success in doing work safely.

- b. Review performance of the contractor (and GOGO operations) against formally established ES&H performance measures and other ES&H performance indicators, and take appropriate action.

EH Responsibilities (EH-2):

Evaluate the effectiveness of line management's oversight.

9.6.3.2 EH oversight

EH-2 evaluates the status and implementation of Departmental safety management systems and their effectiveness in addressing nuclear, environmental, safety, and health issues and reports to DOE management and to external stakeholders, such as Congress. These evaluations include periodic monitoring in the form of safety evaluations, special studies, and reviews. In addition, EH-2 informs DOE management and stakeholders, as appropriate, of current or probable future ES&H issues that can affect public, worker, and environmental protection. These issues can range from policy decisions to on-site operations. EH-2, in its capacity as the sole independent overseer, 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 oversight.

CSO Responsibilities:

- a. Approve corrective action plans within 60 days of issuance of the formal independent oversight assessment report.
- b. Provide an opportunity for the DOE's Chief Operating Officer or designee to be briefed by the FEM, EH-2, and the Assistant Secretary for Environment, Safety and Health on the related issues, the corrective action plan, and any associated resource issues.
- c. Resolve identified cross-organizational disputes, such as those related to the timeliness or adequacy of corrective action plans 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 and prepare a corrective action plan to address the issues raised in formal independent oversight assessment reports.
- c. If EH-2 provides comments on a corrective action plan, determine whether the corrective action plan needs to be revised to address those comments, and revise the corrective action plan appropriately.
- d. Implement the corrective action plan.
- 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 corrective action plan.

EH Responsibilities (EH-2):

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

9.6.3.3 Price-Anderson Amendments Act enforcement

The Office of Enforcement and Investigations (EH-10) carries out DOE's function under the Price-Anderson Amendments Act of 1988 for enforcement of DOE nuclear safety requirements and investigation of potential violations, including quality assurance program requirements, nuclear safety management, occupational radiation protection, workplace substance abuse programs, and DOE contractor employees protection programs.

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.

CSO 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.

Office of Enforcement and Investigation (in the Office of Environment, Safety and Health):

- a. Investigate noncompliances with nuclear safety rules.
- b. Assess the level of violation of noncompliances and issue notices of violation where appropriate.
- c. Establish, maintain, and implement a noncompliance tracking system for self-reporting by contractors and GOGO facilities.
- d. Issue 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.

9.6.3.4 Interface with Defense Nuclear Facilities Safety Board (DNFSB)

Deputy Secretary Responsibilities:

Resolve disagreements among Department 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 140.1-1A, 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 140.1-1A, 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 functions, responsibilities, and authorities documents to ensure that the safety functions in that canceled directive 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://explorer.doe.gov/>.

Federal Statutes and Requirements		
Reference	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 104-113	National Technology Transfer and Advancement Act of 1995	9.2.2.2, 9.2.2.3
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	Title	OPI	Manual Section
10 CFR 711	Personnel Assurance Program	DP	9.4.4
10 CFR 820	Procedural Rules for DOE Nuclear Activities	EH	9.4.1.4, 9.4.1.5, 9.6.3.3
10 CFR 830.120	Quality Assurance Requirements	EH	9.5.3, 9.6.2
10 CFR 835	Occupational Radiation Protection	EH	5, 9.4.1.5
10 CFR 707	Workplace Substance Abuse Programs at DOE Sites	MA	
10 CFR 708	DOE Contractor Employees Protection Program	MA	
29 CFR 1910	Occupational Safety and Health Standards	DOL	9.3
29 CFR 1960	Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters	DOL	9.5

Code of Federal Regulations (continued)			
Reference	Title	OPI	Manual Section
40 CFR Chapter 1	Protection of the Environment, Environmental Protection Agency	EPA	9.3, 9.5, 9.6
48 CFR Chapter 9	DOE Acquisition Regulations	MA-5	9.1, 9.2.2.4, 9.2.3

DOE Policies			
Directive	Title	OPI	Manual Section
DOE P 111.1	DEPARTMENTAL ORGANIZATION MANAGEMENT SYSTEM	MA	8
DOE P 251.1	DIRECTIVES SYSTEM	MA	9.6.1.1
DOE P 410.1A	PROMULGATING NUCLEAR SAFETY REQUIREMENTS	GC	9.1.1
DOE P 411.1	SAFETY MANAGEMENT FUNCTIONS, RESPONSIBILITIES AND AUTHORITIES	EH	7, 9.1.1, 9.2.2.5
DOE P 426.1	FEDERAL TECHNICAL CAPABILITY POLICY FOR DEFENSE NUCLEAR FACILITIES	MA	5, 9.1.6.1
DOE P 441.1	DEPARTMENT OF ENERGY RADIOLOGICAL HEALTH AND SAFETY POLICY	EH	9.1.1
DOE P 450.1	ENVIRONMENT, SAFETY AND HEALTH POLICY FOR THE DEPARTMENT OF ENERGY COMPLEX	EH	9.1.1
DOE P 450.2A	IDENTIFYING, IMPLEMENTING, AND COMPLYING WITH ENVIRONMENT, SAFETY AND HEALTH REQUIREMENTS	GC	9.4.1
DOE P 450.3	AUTHORIZING USE OF THE NECESSARY AND SUFFICIENT PROCESS FOR STANDARDS-BASED ENVIRONMENT, SAFETY AND HEALTH MANAGEMENT	EH	9.4.1
DOE P 450.4	SAFETY MANAGEMENT SYSTEM POLICY	EH	1, 4
DOE P 450.5	LINE ENVIRONMENT, SAFETY AND HEALTH OVERSIGHT	DP	9.5.2, 9.6.3.1
DOE P 450.6	SECRETARIAL POLICY STATEMENT ENVIRONMENT, SAFETY AND HEALTH	EH	9.6

DOE Orders (New Series)			
Directive	Title	OPI	Manual Section
DOE O 130.1	BUDGET FORMULATION	CFO	9.1.4
DOE O 135.1	BUDGET EXECUTION - FUNDS DISTRIBUTION AND CONTROL	CFO	9.1.5, 9.2.3
DOE O 151.1	COMPREHENSIVE EMERGENCY MANAGEMENT SYSTEM	NN	9.4.2, 9.6.1.1
DOE O 210.1	PERFORMANCE INDICATORS AND ANALYSIS OF OPERATIONS INFORMATION	EH	9.6.1.1, 9.6.1.3
DOE O 225.1A	ACCIDENT INVESTIGATIONS	EH	9.6.1.5
DOE O 231.1	ENVIRONMENT, SAFETY AND HEALTH REPORTING	EH	9.6.1.4
DOE O 232.1A	OCCURRENCE REPORTING AND PROCESSING OF OPERATIONS INFORMATION	EH	9.6.1.2
DOE O 251.1A	DIRECTIVES SYSTEM	MA	9.2.2.1, 9.4.1.3
DOE O 360.1A	TRAINING	MA	9.1.6
DOE O 413.1	MANAGEMENT CONTROL PROGRAM	CFO	9.2.1
DOE O 414.1A	QUALITY ASSURANCE	EH	9.2.2.5, 9.5.3, 9.6.2
DOE O 420.1	FACILITY SAFETY	EH	9.4.2, 9.4.3.2
DOE O 420.2	SAFETY OF ACCELERATOR FACILITIES	SC	9.3.1, 9.4.3.2
DOE O 425.1A	STARTUP AND RESTART OF NUCLEAR FACILITIES	EH	9.5.1
DOE O 426.1	FEDERAL TECHNICAL CAPABILITY FOR DEFENSE NUCLEAR FACILITIES	MA	9.1.6
DOE O 430.1A	LIFE-CYCLE ASSET MANAGEMENT	FI	9.2.2.4
DOE O 435.1	RADIOACTIVE WASTE MANAGEMENT	EM	9.4.3.2
DOE O 440.1A	WORKER PROTECTION MANAGEMENT FOR DOE FEDERAL AND CONTRACTOR EMPLOYEES	9.5	9.5
DOE O 440.2	AVIATION	MA	9.4.3.2
DOE O 442.1	DEPARTMENT OF ENERGY EMPLOYEE CONCERNS PROGRAM	ED	9.1, 9.4.3.2
DOE O 451.1A	NATIONAL ENVIRONMENTAL PROTECTION ACT COMPLIANCE PROGRAM	9.4	9.4

DOE Orders (New Series continued)			
Directive	Title	OPI	Manual Section
DOE O 452.1A	NUCLEAR EXPLOSIVE AND WEAPON SURETY PROGRAM	DP	9.4.4
DOE O 452.2A	SAFETY OF NUCLEAR EXPLOSIVE OPERATIONS	DP	9.4.4
DOE O 460.1A	PACKAGING AND TRANSPORTATION SAFETY	EM	9.4.3.2
DOE O 460.2	DEPARTMENTAL MATERIALS TRANSPORTATION AND MANAGEMENT	EM	9.4.3.2

DOE Orders (Old Series)			
<p>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 FRA documents should consider the responsibilities assigned in canceled directives where these are included in contracts that organization administers.</p>			
Directive	Title	OPI	Manual Section
DOE O 1300.2A	DEPARTMENT OF ENERGY TECHNICAL STANDARDS PROGRAM	EH	9.2.2.2, 9.2.2.3
DOE O 4320.2A	CAPITAL ASSET MANAGEMENT PROCESS	FI	9.2.4
DOE O 4330.4B	MAINTENANCE MANAGEMENT PROGRAM		9.1
DOE O 4700.1	PROJECT MANAGEMENT SYSTEM	MA	9.1
DOE O 5400.1	GENERAL ENVIRONMENTAL PROTECTION PROGRAM	EH	9.4
DOE O 5400.5	RADIOLOGICAL PROTECTION OF THE PUBLIC AND THE ENVIRONMENT	EH	9.4
DOE 5480.3 Canceled	SAFETY REQUIREMENTS FOR THE PACKAGING AND TRANSPORTATION OF HAZARDOUS MATERIALS, HAZARDOUS SUBSTANCES, AND HAZARDOUS WASTES	EM	see DOE O 460.1A, DOE O 460.2
DOE 5480.7A Canceled	FIRE PROTECTION	EH	9.4.3.2
DOE 5480.18B Canceled	NUCLEAR FACILITY TRAINING ACCREDITATION PROGRAM	EH	9.1.6, 9.4
DOE 5480.19	CONDUCT OF OPERATIONS REQUIREMENTS FOR DOE FACILITIES	EH	9.4

DOE Orders (Old Series continued)			
Directive	Title	OPI	Manual Section
DOE 5480.20A	PERSONNEL SELECTION, QUALIFICATION, AND TRAINING REQUIREMENTS FOR DOE NUCLEAR FACILITIES	EH	9.1.6
DOE 5480.21	UNREVIEWED SAFETY QUESTIONS	EH	see DOE 5480.23
DOE 5480.22	TECHNICAL SAFETY REQUIREMENTS	EH	9.4.1, 9.4.2, 9.4.3.1
DOE 5480.23	NUCLEAR SAFETY ANALYSIS REPORTS	EH	9.3.1, 9.4.1, 9.4.3.1
DOE 5480.24 Canceled	NUCLEAR CRITICALITY SAFETY	EH	see DOE O 420.1
DOE 5480.25 Canceled	SAFETY OF ACCELERATOR FACILITIES	SC	see DOE O 420.2
DOE 5480.28 Canceled	NATURAL PHENOMENA HAZARDS MITIGATION	EH	see DOE O 420.1
DOE 5480.29 Canceled	EMPLOYEE CONCERNS MANAGEMENT SYSTEM	EH	see DOE O 442.1
DOE 5480.30	NUCLEAR REACTOR SAFETY DESIGN CRITERIA	EH	9.3.1, 9.4.3.2
DOE 5480.31 Canceled	STARTUP AND RESTART OF NUCLEAR FACILITIES	EH	see DOE O 425.1A
DOE 5481.1B Canceled	SAFETY ANALYSIS AND REVIEW SYSTEM	EH	9.4.3.2
DOE 5530.1A	ACCIDENT RESPONSE GROUP	DP	9.4.2
DOE 5530.2	NUCLEAR EMERGENCY SEARCH TEAM	DP	9.4.2
DOE 5530.4	AERIAL MEASURING SYSTEM	DP	9.4.3.2
DOE 5610.13	JOINT DEPARTMENT OF ENERGY/DEPARTMENT OF DEFENSE NUCLEAR WEAPON SYSTEM SAFETY, SECURITY, AND CONTROL ACTIVITIES	DP	9.4.3.2
DOE 5700.6C Canceled	QUALITY ASSURANCE	EH	see DOE O 414.1

DOE Manuals			
Directive	Title	OPI	Manual Section
DOE M 135.1-1	BUDGET EXECUTION MANUAL	CFO	9.1.5, 9.2.2.1, 9.2.3
DOE M 140.1-1A	INTERFACE WITH THE DEFENSE NUCLEAR FACILITIES SAFETY BOARD	S3.1	9.6.3.4
DOE M 232.1-1A	OCCURRENCE REPORTING AND PROCESSING OF OPERATIONS INFORMATION	EH	9.6.1.2
DOE M 251.1-1A	DIRECTIVES SYSTEM MANUAL	HR	9.2.2.1, 9.2.2.2, 9.4.1.3
DOE M 435.1-1	RADIOACTIVE WASTE MANAGEMENT MANUAL	EM	9.4.3.2
DOE M 450.3-1	THE DEPARTMENT OF ENERGY CLOSURE PROCESS FOR NECESSARY AND SUFFICIENT SETS OF STANDARDS	EH	9.4.1

DOE Standards			
Directive	Title	OPI	Manual Section
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
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

DOE Standards (continued)			
Directive	Title	OPI	Manual Section
STD-1063-97	<i>Establishing and Maintaining a Facility Representative Program at DOE Facilities</i>	FM	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-3006-95	<i>Planning and Conduct 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

DOE Guides			
Directive	Title	OPI	Manual Section
DOE G 120.1-5	GUIDELINES FOR PERFORMANCE MEASUREMENT	EH	9.6.1.3
DOE G 414.1-2	QUALITY ASSURANCE MANAGEMENT SYSTEM FOR USE WITH 10 CFR 830.120 AND DOE O 414.1	EH	9.5.3
DOE G 426.1-1	RECRUITING, HIRING, AND RETAINING HIGH-QUALITY TECHNICAL STAFF: A MANAGER'S GUIDE TO ADMINISTRATIVE FLEXIBILITIES.	MA	9.1.6.1
DOE G 430.1-3	DEACTIVATION IMPLEMENTATION GUIDE		

DOE Guides (continued)			
Directive	Title	OPI	Manual Section
DOE G 430.1-4	DECOMMISSIONING IMPLEMENTATION GUIDE		
DOE G 440.1-6	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	EH	9.5.3
DOE G 441.1-1	MANAGEMENT AND ADMINISTRATION OF RADIATION PROTECTION PROGRAMS GUIDE FOR USE WITH 10 CFR 835, OCCUPATIONAL RADIATION PROTECTION	EH	
DOE G 441.1-3	INTERNAL DOSIMETRY PROGRAM GUIDE FOR USE WITH 10 CFR 835, OCCUPATIONAL RADIATION PROTECTION	EII	
DOE G 441.1-6	EVALUATION AND CONTROL OF RADIATION DOSE TO THE EMBRYO/FETUS GUIDE FOR USE WITH 10 CFR 835, OCCUPATIONAL RADIATION PROTECTION	EH	
DOE G 441.1-7	PORTABLE MONITORING INSTRUMENT CALIBRATION GUIDE FOR USE WITH 10 CFR 835, OCCUPATIONAL RADIATION PROTECTION	EH	
DOE G 441.1-8	AIR MONITORING GUIDE FOR USE WITH 10 CFR 835, OCCUPATIONAL RADIATION PROTECTION	EH	
DOE G 441.1-9	RADIOACTIVE CONTAMINATION CONTROL GUIDE FOR USE WITH 10 CFR 835; OCCUPATIONAL RADIATION PROTECTION	EH	
DOE G 441.1-10	POSTING AND LABELING FOR RADIOLOGICAL CONTROL GUIDE FOR USE WITH 10 CFR 835, OCCUPATIONAL RADIATION PROTECTION	EH	
DOE G 441.1-11	OCCUPATIONAL RADIATION PROTECTION RECORD-KEEPING AND REPORTING GUIDE FOR USE WITH 10 CFR 835, OCCUPATIONAL RADIATION PROTECTION	EH	
DOE G 441.1-12	RADIATION SAFETY TRAINING GUIDE FOR USE WITH 10 CFR 835, OCCUPATIONAL RADIATION PROTECTION	EH	

DOE Guides (continued)			
Directive	Title	OPI	Manual Section
DOE G 442.1-1	DOE EMPLOYEE CONCERNS PROGRAM GUIDE	ED	9.4.3.2
DOE G 452.2A-1A	IMPLEMENTATION GUIDE FOR DOE ORDER 452.2A, SAFETY OF NUCLEAR EXPLOSIVE OPERATIONS	DP	9.4.4

DOE Handbooks			
Directive	Title	OPI	Manual Section
HDBK-1085-95	<i>DOE Enforcement Program Roles and Responsibilities</i>	EH	9.4.1.6, 9.6.3.3
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

CFR	Code of Federal Regulations
CSO	Cognizant Secretarial Officer
DEAR	Department of Energy Acquisition Regulation
DNFSB	Defense Nuclear Facilities Safety Board
DOE	Department of Energy
DOL	Department of Labor
DP	Office of the Assistant Secretary for Defense Programs
EH	Office of the Assistant Secretary for Environment, Safety and Health
EM	Office of the Assistant Secretary for Environmental Management
ES&H	environment, safety and health
FEM	field element manager
FI	Office of Field Integration
FRA	functions, responsibilities, and authorities
GC	Office of the General Counsel
GOCO	government-owned, contractor-operated
GOGO	government-owned, Government-operated
HDBK	handbook
LPSO	Lead Program Secretarial Office
MA	Office of Management and Administration
OMB	Office of Management and Budget
OPI	office of primary interest
ORPS	Occurrence Reporting and Processing System
P.L.	Public Law
PSO	Program Secretarial Office
STD	standard

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 designee 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 designee 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-

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.

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 and associated corrective action completion, tracking and reporting. The cognizant line manager is also responsible for initiating action to elevate issues associated with corrective action plan development, implementation, and completion to high authority for resolution when necessary.

Cognizant Secretarial Officer. The Assistant Secretary or Director responsible for a bounded set of facilities or a laboratory (e.g., Lawrence Livermore National Laboratory, Y-12 Plant) within a multi-program field office. (See memorandum, T. J. Glauthier to Departmental Elements, "Roles and Responsibilities Guiding Principles," 8-19-99.)

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 541.1, APPOINTMENT OF CONTRACTING OFFICERS AND CONTRACTING OFFICER REPRESENTATIVES, which supersedes DOE 4200.4A. 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]

Core Technical Group. The DOE employees identified in a Defense Programs database as possessing technical expertise and prior work experience in a variety of safety-related subjects, for use in recruiting personnel for specific missions.

Delegation. Written permission sent by a responsible authority to another DOE employee transmitting the authority to perform a specific function on behalf of that responsible authority, usually containing guidance towards 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.

Ensure. As used in this Manual, to ensure means that normal supervision is to be employed 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 to be employed 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 O 5480.19, STD-1063-97]

Federal Technical Capabilities Panel. A panel of Senior Technical Safety Managers appointed by the Managers 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 that is geographically distinct. 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. The Field Management Council was 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 with impact the field must flow through the Field Management Council. The Field Management Council is chaired by the Deputy Secretary, and includes the Under Secretary, the Assistant Secretaries for Defense Programs and Environmental Management, and the Director of the Office of Science. Two other members, one from among the other PSOs and the other an FEM, serve in rotation.

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 which 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]

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]

DOE-STD-1027-92 provides guidance and radiological threshold values for determining the hazard category of a facility. 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. Design features, operating limits, and administrative or safety practices, processes, or procedures to prevent, control, or mitigate hazards.

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 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, agreement, or delegation 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 or Director to whom assigned field offices directly report and who has overall ownership responsibility for those field offices. (See memorandum, T. J. Glauthier to Departmental Elements, "Roles and Responsibilities Guiding Principles," 8-19-99.)

Nuclear Facility. Nuclear facility means reactor and nonreactor nuclear facilities. 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 is defined as a reactor. Nonreactor nuclear facility means 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]

Office of Primary Interest. 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. Oversight is separate and distinct from line management activities, including self-assessments. [DOE Glossary]

Program Office. See Program Secretarial Office.

Program Secretarial Office (PSO). 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 for Defense Programs; Energy Efficiency and Renewable Energy; Environmental Management; Nonproliferation and National Security; and Fossil Energy, and the Offices of Civilian Radioactive Waste Management; Science; Fissile Materials Disposition; and Nuclear Energy, Science and Technology. 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. Responsibility cannot be delegated although the associated authority may be.

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]

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.

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

Secretarial Safety Council. As established by the Secretary, a council to include senior DOE Headquarters and field managers, chaired by the Deputy Secretary, assigned the task of providing leadership and guidance in implementing integrated safety management across the Department.

Support Office. A DOE organization that provides administrative, legal, technical, independent oversight, policy, and standards support to program offices for safety management functions. Examples of 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.