



96-0001571

**The Secretary of Energy**  
Washington, DC 20585

April 18, 1996

The Honorable John T. Conway  
Chairman  
Defense Nuclear Facilities Safety Board  
625 Indiana Avenue, NW  
Suite 700  
Washington, DC 20004

DNF SAFETY BOARD

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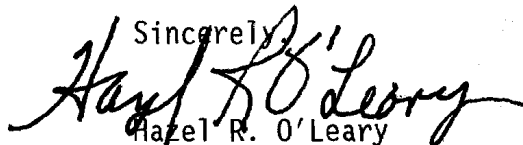
Dear Mr. Chairman:

This letter forwards the Department's Implementation Plan for addressing the Safety Management issues raised in the Defense Nuclear Facilities Safety Board's Recommendation 95-2.

The Department acknowledges the concerns raised by the Board in Recommendation 95-2. This Implementation Plan fulfills my commitment to you in my letter of January 17, 1996, to develop an implementation plan which recognizes that effective work planning must be integrated into management at all levels. The activities described in this plan will help ensure that the Department effectively accomplishes its mission while ensuring the safety of the public, workers and the environment. The Department believes that this Implementation Plan meets the intent of Recommendation 95-2.

The Implementation Plan describes an aggressive program of actions. Field and Area offices will proceed without delay with initiatives to institutionalize the Safety Management System as described in this Implementation Plan. To ensure its success, I have tasked the Acting Under Secretary, Mr. Thomas P. Grumbly, to establish a Safety Management Implementation Team to institutionalize the Safety Management System in the Department. This Implementation Team will be composed of safety and management professionals from the field and headquarters who will be charged with pulling this program together and coordinating with other ongoing complementary activities.

We appreciate Mr. DiNunno's and Dr. Kouts' advice and support in the Department's development of this plan. If you have any questions, please feel free to contact me or Mr. Grumbly.

Sincerely,  
  
Hazel R. O'Leary

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## DEPARTMENT IMPLEMENTATION PLAN

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Department of Energy Plan  
for the Development and Implementation of

# Integrated Safety Management

(Implementation Plan for Board Recommendation 95-2)



Washington, D.C. 20585

April 18, 1996

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## Executive Summary

The Department is committed to conducting work efficiently and in a manner that ensures protection of workers, the public and the environment. Over the past three years, the Department has developed and implemented a number of systems that are designed to achieve an acceptable level of safety throughout Departmental operations. These systems are designed to achieve the following results:

- enhance our ability to plan and execute work, identify the hazards associated with specific operations and activities, and control or eliminate such hazards in an appropriate and cost-effective manner;
- clarify our expectations for the work to be accomplished and the level of environment, safety and health protection to be established and to do so in a manner that is not overly prescriptive but allows contractors to exercise the best means of meeting these expectations;
- establish clear roles and responsibilities for protection of environment, safety and health throughout the Department and our contractor corps;
- shift the focus of attention from "paper requirements" and documentation to a disciplined, analytical and collaborative focus on work planning, hazards analysis and hazards control; and
- establish analytical bases for setting risk-based management and project priorities.

The objective of integrated safety management (referred to as safety management in this document) is for the Department and contractors to systematically integrate safety into management and work practices at all levels so that missions are accomplished while protecting the public, the worker, and the environment.

### *Objective of Integrated Safety Management*

*The Department and Contractors must systematically integrate safety into management and work practices at all levels so that missions are accomplished while protecting the public, the worker, and the environment.*

Stated simply, the objective is to: **DO WORK SAFELY.**

## *Department Implementation Plan - Safety Management*

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The objective, guiding principles, and core functions of safety management have been defined in this Implementation Plan and should be used consistently in implementing safety management throughout the Department complex. Throughout this plan, the term safety is used synonymously with environment, safety and health (ES&H) to encompass protection of the public, the workers, and the environment. The guiding principles for safety management are the fundamental policies that guide Department and contractor actions, from developing safety directives to performing work. The safety management guiding principles include: line management responsibility for safety, competence commensurate with responsibilities, and establishment of an appropriate set of safety requirements. The guiding principles were developed by a group of safety and management professionals following a review of safety guiding principles in other Department documents and industry safety standards.

Safety management activities can be grouped into five core safety management functions:

- 1) define scope of work,
- 2) identify and analyze hazards associated with the work,
- 3) develop and implement hazard controls,
- 4) perform work within controls, and
- 5) provide feedback on adequacy of controls and continuous improvement in defining and planning work.

These five core safety management functions provide the necessary structure for any work activity that could potentially affect the public, the workers, and the environment. The degree of rigor needed to address these functions will vary based on the type of work activity and the hazards involved.

The key elements of this plan include:

- Institutionalizing through Department directives the Safety Management System, including establishment of the Department-wide safety management objective, guiding principles, and functions; establishment of guidance for tailoring the level of rigor based on the work involved, the hazard and potential for environmental impact; and direction on authorization basis and authorization agreements.
- Identifying existing directives and ongoing Department initiatives involving safety management that need to be reconciled and integrated.
- Upgrading the Functions, Assignments, and Responsibilities Manual, consistent with the direction provided by the Safety Management System.
- Implementing a variety of activities to share, recruit/acquire and develop/train

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Department technical expertise for effectively implementing the Safety Management System.

- Developing contractual mechanisms to implement the Department's Safety Management System into existing and future contracts.
- Implementing the integrated safety management system at a priority list of Department sites and facilities.

A Safety Management Implementation Team will be established to oversee the commitments and internal management actions outlined in this Implementation Plan. The Implementation Team will track and reconcile other relevant Department programs and initiatives for consistency with the safety management approach outlined in this plan. This dedicated Implementation Team will report directly to the Under Secretary. Further changes in Departmental organization may also be warranted once it becomes clear how effectively the recommendation is being implemented through this process.

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## 1. Background

The Department is committed to conducting its work efficiently and in a manner that ensures protection of the workers, the public and the environment. Initiatives underway within the Department are designed to provide an effective system for managing safety, consistent with its missions, budgets, and risk acceptance objectives. Line managers are being given the authority and being held accountable for implementing health, safety, and environmental requirements. These requirements will be clearly defined and commensurate with the hazards and risks associated with the work.

***DOE Critical Success Factor***

*"Ensuring the safety and health of workers and the public and the protection and restoration of the environment are fundamental responsibilities of the Department of Energy."*

*- DOE Strategic Plan, 1994*

Recommendation 95-2, submitted to the Department on October 11, 1996, seeks to combine and modify previous Board recommendations concerning the use of standards for conducting operations. The recommendation calls for: 1) an institutionalized process for ensuring environment, safety, and health requirements are met, 2) safety management plans for conduct of operations, tailored based upon risk, 3) a prioritized list of facilities/activities based on hazards and importance, 4) direction and guidance for the integrated safety management system, and 5) measures to ensure the Department has or will acquire the necessary technical expertise to effectively implement the process.

The Department's acceptance of Recommendation 95-2, as discussed in the Secretary's letter of January 17, 1996, is based on the premise that safety management must be integrated into management and work practices at all levels so that missions are accomplished and the public, the workers, and the environment are protected. Stated simply, the objective is to: **DO WORK SAFELY**. The Department has implemented or is developing many of the necessary elements of an improved safety management system. This Plan describes the actions for completing that development effort and institutionalizing a safety management system effectively Department-wide. Throughout this plan, the term safety is used synonymously with environment, safety and health to encompass protection of the public, the workers, and the environment.

## **2. Underlying Issues**

The Department has thoroughly evaluated its past performance in managing safety of Department facilities and activities. This evaluation provides an understanding from which positive change can be made. Some of these changes include:

- Ensuring that overall management of safety functions and activities become an integral part of the Department's business process.
- Developing an approach for tailoring safety requirements appropriate for the work and the hazards.
- Recognizing that many existing programs and initiatives related to safety management must be reconciled and brought into a coherent, appropriate, integrated system.
- Establishing a corporate safety management system which will readily facilitate establishment of balanced priorities; allocation of resources based on work and associated hazards; and translation of lessons learned from managing one hazard type for the benefit of managing other hazard types.
- Establishing clear roles and responsibilities for safety management that provide for ownership and assurance of safety.
- Ensuring that assigned responsibilities and personnel competence are properly aligned for effectively implementing safety management systems.

These underlying issues form the basis of the Implementation Plan and these are discussed in more detail below.

Integrating Safety Management into the Business Process. The Department's missions include assuring nuclear deterrence, conducting research, energy security, dismantling surplus facilities, and cleaning-up legacy waste. The Department must meet its responsibilities to protect the public, the workers, and the environment, while accomplishing these missions. The Department's business processes for defining mission objectives, assuring that work objectives are compatible with mission objectives, establishing and modifying contracts, obtaining and allocating resources, and managing execution and monitoring performance should consider all aspects of Department operations, including safety management. To be efficient and cost-effective, safety management must become part of each work activity, rather than something "in addition to" or "on top of." Expectations for contractor safety performance are an integral part of expectations for contractor overall performance and mission accomplishment.



Tailored Approach. A key challenge in institutionalizing a safety management system that can be used uniformly for all hazard types and levels is to allow for flexibility in the performance of the work. The Department's efforts to identify and apply standards throughout the complex have proven that a "one-size-fits-all" approach is not appropriate and cannot succeed. When lower hazard facilities apply standards that are appropriate for higher hazard facilities, this often results in minimum value-added, excessive costs, and encumbered work activities. While core safety functions are similar for all facilities and activities, the implementing mechanisms and approval authorities need to be allowed to differ, based on the hazards and work being performed. For example, Nuclear Safety Analysis Reports and Department-conducted Operational Readiness Reviews are appropriate for higher hazard activities but not for all activities.

Coherent, Integrated System. With the formation of the Department Standards Committee in 1994, the Department recognized that existing safety management efforts across the various program offices needed to become more effective, better coordinated, and cost-effective. For the most part, the necessary elements and initiatives for assuring safety are in place (see Appendix C). The existing Department safety management system can be transformed from the current patchwork of overlapping elements and initiatives into a coherent, integrated safety management system. The guiding principles, functions, mechanisms, and responsibilities necessary to effectively implement safety management can be identified and connected in a systematic way. A common understanding of fundamental components of the safety management system need to be attained and communicated throughout the Department complex.

Corporate System. This plan describes a safety management system which will readily facilitate establishment of balanced priorities; allocation of resources based on work and associated hazards; and translation of lessons learned from managing one hazard type for the benefit of managing other hazard types.

Clear Roles and Responsibilities. A clear assignment of safety management functions and responsibilities is essential. The Department has the ultimate responsibility for ensuring that the management of risk is effectively conducted at all Department facilities and activities. Likewise, Department contractors have responsibilities for managing and performing work safely. The Department needs to make decisions about which functions should be contractor responsibilities and to assure that contractor performance is adequate.

Competence Commensurate with Responsibility. It is critical that personnel possess the experience, knowledge, skills, and abilities that are necessary to discharge their responsibilities. The Department has a considerable amount of technical talent and an experience base which is uniquely suited to the Department's work. But the Department can do a better job in recruiting, managing and leveraging this expertise and focusing it on the

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most important priorities and challenges in order to effectively implement safety management systems. In addition, the Department must identify weaknesses in technical competence which may hinder institutionalization or sustenance of effective safety management systems.

### **3. Assumptions**

The Department makes the following assumptions in developing this Implementation Plan:

- The Department has already in place the majority of elements necessary for safety management (see Appendix C), but these may be integrated and rationalized to ensure performance.
- Sufficient flexibility must be provided to field operations and contractors to accomplish their missions effectively. This must be balanced with the need for the Department's Headquarters program managers to be responsive and accountable for mission completion and for establishing environment, safety and health policies and management expectations.
- Department safety management systems must ensure that the Department is attending to its most significant risks to environment, safety and health in a cost-effective manner.
- The Department can assign safety management functions and responsibilities to the contractor and achieve the expected level of safety performance when the assigned functions are appropriately defined and monitored.
- The features of a facility or operation that may be a basis for tailoring of safety requirements include: the risk, as determined by hazards/safety analysis; the experience and competence of the operating management and staff; and the expected duration of the operation or use of the facility.
- The Department has the responsibility to reduce the risks to an acceptable level and authorize the conduct of all activities performed at Department sites and facilities. The form and content of the Department's authorization to proceed will vary based on the work to be performed and the hazards and risks associated with the work.
- Primary safety responsibility belongs to line management. Day-to-day ES&H oversight by line management is a key element in effective safety management. Recent steps to streamline and enhance line oversight activities, including the use of facility representatives at facilities to ensure that managers and workers: understand their assigned duties; are cognizant of and responsive to site hazards; have comprehensive and adequate safety standards in place; execute work knowing that they are accountable for environment, safety, and health performance; and ensure that contractors abide by their safety commitments.

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- The Department will maintain a vigorous and comprehensive, independent oversight program that evaluates the effectiveness of safety management at Departmental sites and operations. This information will be used by the line organizations to improve the performance of environment, safety, and health and thereby, support the management of risks.
- This plan does not apply to Naval Reactors (Naval Nuclear Propulsion Program) which is not subject to Board oversight. Naval Reactors achieves a high degree of safety through strict technical discipline, high standards, close headquarters control and oversight throughout Program activities. The joint DOE/Navy nature of the Program assures uniform application of Program requirements to all Program activities.

### **4. Summary of Completed and Ongoing Activities**

Over the past three years, the Department has undertaken a number of initiatives that were designed to improve safety management throughout Departmental operations. These initiatives are identified in Appendix C.

Key among these policy initiatives and programs that have significant impact on safety management are directives reform, including the promulgation and implementation of nuclear safety rules; the requirements identification approaches such as Standards/Requirements Identification Documents (S/RIDs) and the Necessary and Sufficient Closure Process; contract reform, including performance-based contracting; and the R&D Laboratory activities related to safety management; Operational Readiness Reviews (ORR) to confirm readiness; Nuclear Explosive Safety and Surety Program devoted to the safety of nuclear explosives and weapons; line and independent oversight, and the enforcement program under the Price Anderson Amendments Act of 1988.

## 5. Implementation of Integrated Safety Management

### 5.1 Safety Management System and Implementation Approach

The Safety Management System. The Department's safety management system establishes a hierarchy of components that facilitates the orderly development and implementation of safety management throughout the Department complex.

The safety management system, provided in Figure 1, consists of six components: 1) the objective, 2) guiding principles, 3) functions, 4) mechanisms, 5) responsibilities, and 6) implementation. The first three components (i.e., objectives, guiding principles, and functions) needs to be defined and used consistently Department-wide. The second three components (i.e., mechanisms, responsibilities, and implementation) are established for all work being performed and will vary based on the specific nature and hazard of the work being performed. These three components establish the how, who, where, and the when of safety management implementation. Past

efforts at defining a Department-wide safety management system have often experienced difficulty by not clearly differentiating these necessary system components and not appreciating the order in which they must be defined and put into place to achieve

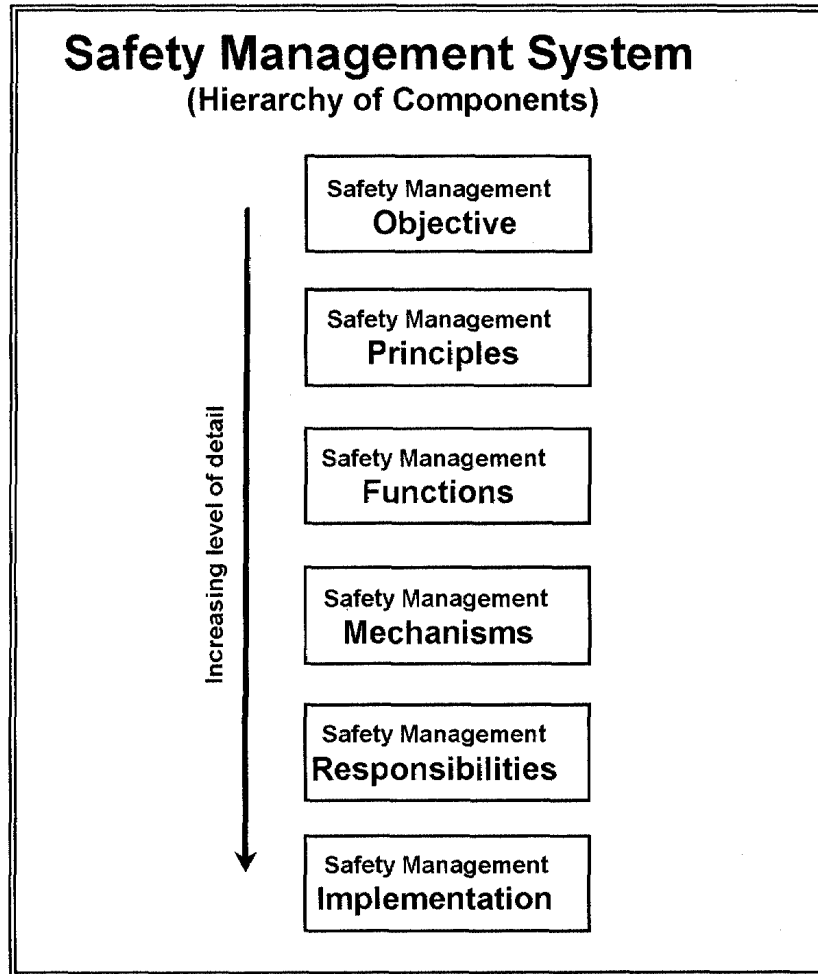


Figure 1: Safety Management System

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consistency and allow flexibility.

The objective of integrated safety management is for the Department and contractors to systematically integrate safety into management and work practices at all levels so that missions are accomplished while protecting the public, the worker, and the environment. Stated simply, the objective is to: **DO WORK SAFELY.**

### *Objective of Integrated Safety Management*

*The Department and Contractors must systematically integrate safety into management and work practices at all levels so that missions are accomplished while protecting the public, the worker, and the environment.*

The guiding principles for safety management are the fundamental policies that guide Department and contractor actions, from developing safety directives to performing work. The safety management guiding principles include: line management responsibility for safety, competence commensurate with responsibilities, and establishment of an appropriate set of safety requirements. The guiding principles were developed by a group of safety and management professionals following a review of safety guiding principles in other Department documents and industry safety standards. The Department's guiding principles for safety management are provided in Figure 2.

***Integrated Safety Management - Guiding Principles***

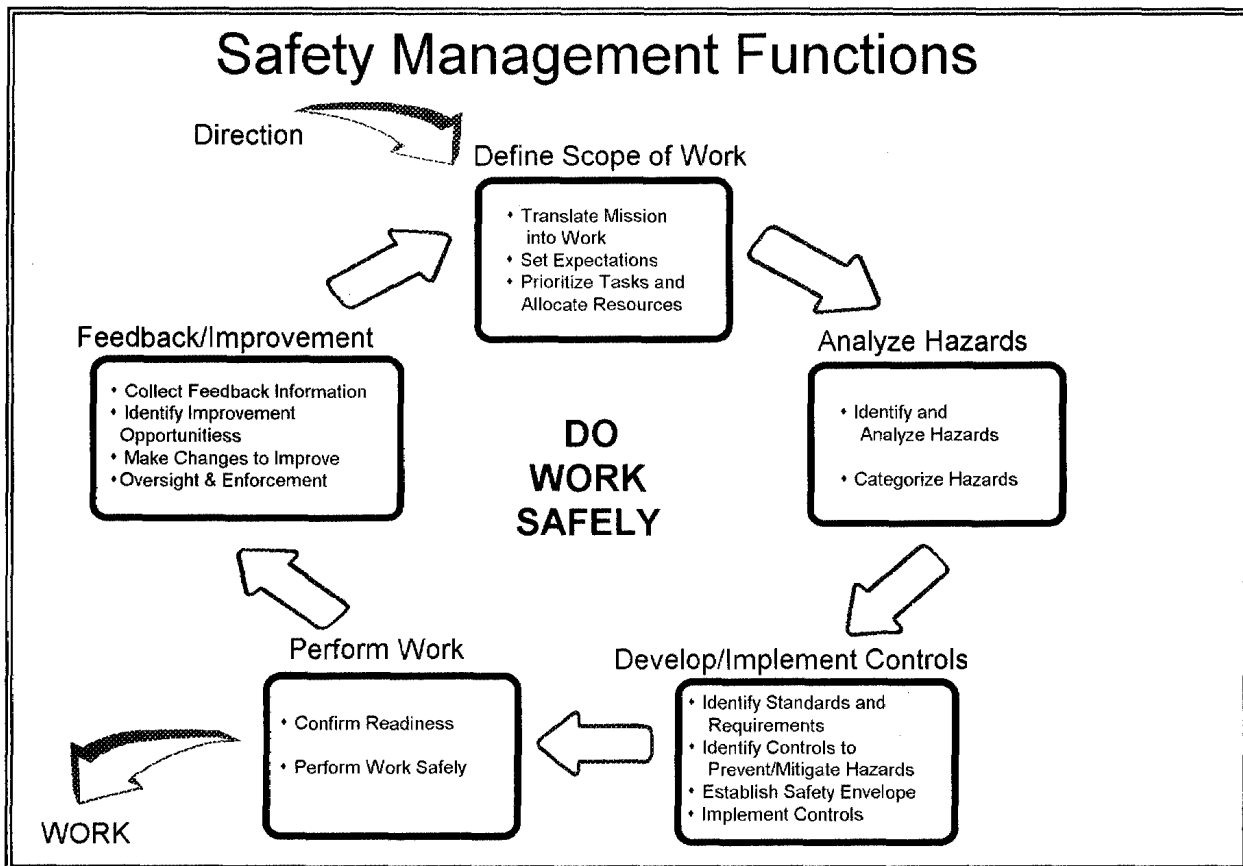
1. *Line Management Responsibility for Safety.* Line management is responsible for the protection of the public, the workers, and the environment.
2. *Clear Roles and Responsibilities.* Clear and unambiguous lines of authority and responsibility for ensuring safety are established and maintained at all organizational levels within the Department and its contractors.
3. *Competence Commensurate with Responsibilities.* Personnel possess the experience, knowledge, skills, and abilities that are necessary to discharge their responsibilities.
4. *Balanced Priorities.* Resources are effectively allocated to address safety, programmatic, and operational considerations. Protecting the public, the workers, and the environment is a priority whenever activities are planned and performed.
5. *Identification of Safety Standards and Requirements.* Before work is performed, the associated hazards are evaluated and an agreed-upon set of safety standards and requirements are established which, if properly implemented, provide adequate assurance that the public, the workers, and the environment are protected from adverse consequences.
6. *Hazard Controls Tailored to Work Being Performed.* Administrative and engineering controls to prevent and mitigate hazards are tailored to the work and associated hazards being performed.
7. *Operations Authorization.* The conditions and requirements to be satisfied for operations to be initiated and conducted are clearly established and agreed-upon.

**Figure 2: Integrated Safety Management Guiding Principles**

Safety management activities can be grouped into five core safety management functions:

- 1) define scope of work,
- 2) identify and analyze hazards associated with the work,
- 3) develop and implement hazard controls,
- 4) perform work within controls, and
- 5) provide feedback on adequacy of controls and continuous improvement in defining and planning work.

These five core safety management functions provide the necessary structure for any work activity that could potentially affect the safety of the public, the workers, and the environment. The degree of rigor in addressing these functions will vary based on the type of work activity and the hazards involved. The core functions are illustrated in figure 3.



**Figure 3: Safety Management Functions**

These core safety management functions comprise several constituent functions. **Defining scope of work** includes: translating mission into work, setting expectations, identifying and prioritizing tasks, and allocating resources. **Analyzing hazards** includes identifying, analyzing and categorizing hazards. **Developing/implementing hazard controls** includes: identifying applicable standards and agreed-upon sets of requirements, identifying controls to prevent/mitigate hazards, establishing a safety envelope, and implementing controls. As can be seen clearly from figure 3, defining scope of work, analyzing hazards, and developing/implementing hazard controls are the core functions which make up work planning.



**Performing work** includes confirming readiness and performing work safely. Finally, the **feedback and improvement** function includes collecting feedback information, identifying improvement opportunities, making changes to improve, line and independent oversight, and enforcement.

The feedback and improvement function obtains inputs from various sources. The first is from the line organization through a variety of self-assessment, continuous improvement, and contractually-based review activities. The second is from line and independent oversight programs through their inspection, assessment, and surveillance activities designed to improve implementation of safety management.

The next level in the safety management system is the mechanisms which define how the safety management functions are performed. While core safety management functions are similar for all facilities and activities, the safety management mechanisms could differ from facility to facility and activity to activity, based on the hazards and work being performed. The primary safety management mechanisms promulgated by headquarters are Department directives (policy, rules, orders, notices, standards, and guidance), and contract clauses (DEAR clauses) for safely managing contracted work. These mechanisms include the Department rules, orders, and standards on identifying and analyzing hazards and performing safety analyses. The headquarters mechanism also includes Department directives which establish the acceptable processes to be used in setting safety standards. Examples include Standards/Requirements Identification Documents (S/RID) Development Process and the Necessary and Sufficient Closure Process (DOE M 450.3-1). The safety management mechanisms need to be integrated to ensure that protection of the public, workers, and the environment is achieved effectively and efficiently. While these are mechanisms to implement safety management from the Department's perspective, they constitute direction from the contractor's perspective. Directives and contract clauses provide **input** to the core function of **defining scope of work**.

At the contractor level, safety management mechanisms are often a specific application of a Department-level directive or contract provision. For example, a Nuclear Safety Analysis Report is a mechanism for analyzing hazards associated with certain specific facilities and activities involving specific hazards. At other facilities and activities, a Health and Safety Plan is the appropriate mechanism for analyzing hazards and defining hazard controls. Contractor safety management mechanisms also include those specific implementing policies and procedures established by the contractor to implement safety management objectives, guiding principles, functions, and fulfill commitments made to the Department.

Clearly defining responsibilities for implementing these mechanisms to accomplish the safety management functions is the next level in the safety management system. For each safety management mechanism employed to satisfy a safety management principle or function, the

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associated approval authority needs to be established. This is consistent with the guiding principle that roles and responsibilities need to be established. The review and approval levels may vary based on the commensurate type of work and hazards involved. For example, Department independent review and approval of operational readiness is appropriate for higher hazard facilities but not necessary for all facilities and activities. While the Department retains ultimate responsibility for safe operation of all facilities and activities, the Department may allow the contractor to authorize operations at low hazard facilities. Before allowing the contractor to authorize such operations, the Department would typically review a description of the contractor's methods and capabilities, and a demonstration of the contractor's performance.

The final level of the safety management system is implementation. This involves specific instances of work definition and planning, hazards identification and analysis, definition or implementation of specific hazard controls, developing and implementing operating procedures, performance of work, monitoring and assessing performance for improvement.

### **Implementing the Department's Integrated Safety Management System**

Successful implementation of the Safety Management System will involve reconciling and integrating to many ongoing programs and initiatives, including the following:

- Department Standards Program (integrating standards-based safety management)
- Directives Reform (streamlining unnecessary and redundant orders and standards)
- Promulgating Nuclear Safety Rules (including administration and exemption processes)
- Necessary and Sufficient Process Roll-out (for tailoring requirements and standards)
- Contract Reform (using performance expectations and incentives)
- Oversight Reform (reducing the layers of Department oversight on contractors)
- Manual on Functions, Assignments, and Responsibilities (updating/revising)
- Training and Qualification Program for Department technical personnel
- Strategic Alignment Initiatives establishing responsibilities and qualifications
- Enhanced Work Planning
- Identification of budget priorities (annual ES&H Management Plan)
- Independent oversight and enforcement programs
- ES&H oversight by line management

The Safety Management System guiding principles and functions provide the central criteria for assessing the value and contribution of these various programs and initiatives. By reconciling and integrating these various efforts, Department and contractor personnel will gain a more coherent understanding of safety expectations.

Likewise, implementation of the Safety Management System at the site, facility or activity level will lead to integration of various contractor programs and initiatives affecting safety. The contractor must understand and reconcile all the various safety management expectations provided by the Department (through various directives, contract clauses, guidance, and oversight) and formulate a coherent, integrated approach to govern safe accomplishment of work activities. The Safety Management System provides a consistent framework for the Department and its contractors to develop and agree on the contractor's approach to safety management. It provides flexibility to define the safety management mechanisms and approval levels, tailored to the work activities and hazards.

This Implementation Plan includes Department commitments to the Board and internal management actions. The Department will provide the Board deliverables defined by the commitments in this plan. Descriptive material contained in this plan provides the context for these commitments and illuminates the overall direction the Department intends to pursue. Although the Department will use the approaches described in this plan for all Department activities and facilities, the commitments to the Board relate only to those activities and facilities subject to the Board's jurisdiction. The internal management actions are identified in Appendix D; Summary of Department Internal Management Actions.

A Safety Management Implementation Team will be established to oversee the commitments and internal management actions outlined in this Implementation Plan. The Implementation Team will also track and reconcile other relevant Department programs and initiatives for consistency with the safety management approach outlined in this plan. This dedicated Implementation Team will report to the Under Secretary. Further changes in Departmental organization may be warranted once it becomes clear how effectively these actions are being implemented.

A lead office is designated for each commitment and internal management action. Each lead office is expected to carry out its functions using a team approach, thereby including participation from the line program and field offices, as appropriate. There will be Safety Management Implementation Team participation in all deliverables. To ensure continuity and adequacy, all deliverables and correspondence relative to the implementation of this plan will be reviewed and approved by the Under Secretary.

The key elements of this plan include:

- Institutionalizing through Department directives the Safety Management System, including establishment of the Department-wide safety management objective, guiding principles, and functions; establishment of guidance for tailoring the level of rigor based on the work involved, the hazard and potential for environmental impact; and direction on authorization basis and authorization agreements.

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- Identifying existing directives and ongoing Department initiatives involving safety management that need to be reconciled and integrated.
- Upgrading the Functions, Assignments, and Responsibilities Manual, consistent with the direction provided by the Safety Management System.
- Implementing a variety of activities to share, recruit/acquire, develop/train Department technical expertise for effectively implementing the Safety Management System.
- Developing contractual mechanisms to implement the Department's Safety Management System into existing and future contracts.
- Implementing the integrated safety management system at a priority list of Department sites and facilities.

### **5.2 Safety Issue Resolution**

The following sections of the plan describe the Department's approach (and associated deliverables and milestones) for implementing an integrated, coherent safety management system throughout the Department:

- Institutionalizing an integrated safety management system
- Tailoring safety management according to work and associated hazards
- Prioritizing implementation of the safety management system
- Establishing direction and guidance for system implementation
- Ensuring necessary technical expertise to accomplish implementation

#### **5.2.1 Institutionalizing an Integrated Safety Management System**

##### **Board Issue Description**

The Department needs to develop and institutionalize a system of integrated safety management using sound management guiding principles which systematically integrate safety assurance into management and work practices at all levels so that missions are accomplished while protecting the public, the worker, and the environment.

##### **Department Commitment**

1. *Institutionalize the process of incorporating into the planning and execution of every major defense nuclear activity involving hazardous materials those controls necessary to ensure that environment, safety and health objectives are achieved.*

Resolution Approach

The Department will promulgate its safety management expectations through a policy, notice, and manual, which institutionalize the following:

- safety management objective,
- safety management guiding principles,
- safety management functions,
- process for defining safety management mechanisms and approval levels,
- guidance for tailoring safety management,
- criteria and guidance for prioritizing implementation of the safety management system

Pending the September 1996 promulgation of the draft manual, initiatives underway and actions ongoing to institutionalize the safety management system should proceed ahead without delay.

Concurrent with development of Department directives on the safety management system, a review will be conducted to identify Department directives and ongoing initiatives involving safety management that need to be reconciled and integrated with the Safety Management System. Each ongoing Department directive and ongoing initiative related to safety management will be evaluated to determine whether it is consistent with the Safety Management System, and whether it meshes appropriately with other directives and initiatives. If this evaluation concludes that an existing directive or ongoing initiative is not consistent, a process will be undertaken to reconcile and integrate the directive or program in line with the Department's integrated safety management system. As part of this effort, Department directives will be reviewed and revised, as necessary, to define authorization basis and authorization agreement consistently with the safety management system outlined in this plan.

The role of the following three key elements in implementing the safety management system must be understood: 1) the contract, 2) the authorization basis, and 3) the authorization agreement. The contractual understanding between the Department and the contractor provides the foundation requirements for safety management at a specific site, facility, or activity. The authorization basis is the information, prepared by the contractor, that establishes the safety envelope for a facility operation or activity. The authorization agreement defines the binding requirements on the contractor approved by the Department for conducting the activity or operating the facility. Each is discussed further below.

The Department will manage safety through a contractually binding process that identifies and incorporates the requirements which provide for safe operation of facilities and activities. The contract is an umbrella document which identifies appropriate requirements for managing safety, tailoring controls for assuring safety of the specific facility or activity based on the

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associated hazards, and establishing approval levels for safety documents. The Department will manage safety by including the following elements in the basic contract: 1) the requirement to manage work safely consistent with the objective, guiding principles and core safety functions of the safety management system that the Department has defined; 2) an agreed-upon list of applicable requirements derived from relevant laws, regulations, Department directives, and industry standards; and 3) clear safety management expectations, including site-specific safety performance objectives and measures. The contract defines the Department's requirements for contractor development of authorization basis documentation and for associated Department review and approval of such documentation, when required.

The authorization basis establishes the safety envelope for a facility operation or activity and defines what will have to be done to control safety of the operation. The authorization basis includes the hazards analysis, the definition of administrative and engineering controls to prevent and mitigate hazards, and the associated technical and operational limits. The type of safety documents that will constitute the authorization basis will vary with the hazard and complexity of the operation or activity. Subsequent to establishing the safety envelope, the contractor prepares for operation by implementing the controls, such as testing, procedures, and training, as described in the authorization basis.

The authorization agreement consists of those contractually binding requirements governing the conduct of the activity or operation of the facility. For lower hazard facilities and activities, the basic contract would serve as the authorization agreement unless the Department specifically directs otherwise for a particular facility or activity. For higher hazard facilities, the authorization agreement would require the contractor to perform in accordance with established operating limits and administrative/operational commitments. Operating limits would include those defined by Technical Safety Requirements, Operational Safety Requirements, the Hazard and Operability Analysis, Safety Analysis Documents, or Health and Safety Plans. Administrative and operational commitments would include change control processes. Authorization agreements, which must be approved by the Department, will specify which of these commitments require Department approval so that the Department may satisfy itself as to the adequacy of those requirements.

Defense Programs promulgated implementation guidance for authorization basis in August 1995 which describes the authorization basis components for nuclear and non-nuclear facilities with long lifetimes. The Department will review existing guidance and formalize its direction on the content of authorization basis and authorization agreements.

### Deliverables/Milestones

The Department will complete the following:

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**Commitment 1.1:** Issue Department policy and notice to define and institutionalize the Department's Safety Management System, including the safety management objectives, guiding principles, and functions defined by this Implementation Plan.

Lead Responsibility: Environment, Safety, and Health

Applicability: Department-wide

Deliverable: Secretarial Policy Statement and Departmental Notice

Due Date: July 11, 1996 (Draft)

September 11, 1996 (Final)

**Commitment 1.2:** Issue draft Safety Management System Manual and/or guidance to implement the system described in the policy and notice (Commitment 1.1). The completion date for the final manual will be provided with the draft.

Lead Responsibility: Environment, Safety, and Health

Applicability: Department-wide

Deliverable: Draft Manual and completion date for the final manual

Due Date: September 11, 1996

### **5.2.2 Tailoring Safety Management According to Work and Associated Hazards**

#### Board Issue Description

Performance of work activities within the defense nuclear complex or the former defense nuclear complex that involve radioactive and other substantially hazardous materials needs to be subject to a safety management system that can be tailored according to the risk associated with the activity. The safety management mechanisms and approval levels for implementing the safety management functions must be tailored in accordance with the type of activity and the level of hazard.

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### Department Commitment

- 2. The conduct of all operations and activities within the defense nuclear complex or the former defense nuclear complex that involve radioactive and other substantially hazardous materials shall be subject to management plans that are [tailored] according to the risk associated with the activity.*

### Resolution Approach

The intensity and formality of safety management mechanisms should be commensurate with the work and associated hazards. The following should be considered, among other factors, as part of the framework to be used as guidance regarding the comprehensiveness of the hazard analysis and means of control: 1) the facility/activity's potential to cause an accident which could have an adverse affect on the workers or the surrounding public or environment; 2) whether the principal activities at the facility are of a repetitive nature (such as production or waste management) performed by technician-level personnel under supervision, versus non-repetitive activities (such as experimentation or deactivation) performed by scientists/engineers; and 3) whether the activities in question or similar ones are expected to be continued for a number of years.

The Department has concluded that the Necessary and Sufficient Process provides an acceptable method for selecting and producing a tailored set of requirements, which would in turn define the appropriate contractor mechanisms and approval levels. The Necessary and Sufficient Process considers Department guidance and requirements for defined hazard levels in reaching agreement on a tailored list of requirements for a given site or facility.

### Deliverables/Milestones

In order to resolve this issue, the Department will complete the following actions:

<b>Commitment 2.1:</b>	Develop guidance for tailoring the level of rigor necessary for performance of work for facilities and activities.
Lead Responsibility:	Chairperson, Department Standards Committee (DSC)
Applicability:	Department-wide
Deliverable:	Tailoring guidance to be developed and reviewed by the DSC and included in Safety Management System Manual (Commitment 1.2)



Due Date: September 11, 1996

### **5.2.3 Prioritizing Implementation of the Safety Management System**

#### Board Issue Description

The Department needs to prioritize its facilities and activities according to their hazard and importance. For both safety and good management reasons, the Department will always need a comprehensive understanding of its priorities. To be useful, any such new list of prioritized facilities and activities must also reflect other current initiatives underway in the Department and should not be carried out exclusively for the purpose of focusing the transition from implementation programs related to Board Recommendations 90-2 and 92-5.

#### Department Commitment

3. *Prioritize the Department's facilities and activities according to their hazard and their importance to defense and cleanup programs.*

#### Resolution Approach

Given resource limitations (expertise, funding, equipment) and external drivers, the Department must establish a prioritization for implementing the safety management system. The following factors are considered relevant in establishing priorities: 1) hazard, 2) importance to long-term Department missions, and 3) existence of mature elements of an integrated safety management system (i.e., approved safety analysis reports, technical safety requirements, and other safety documentation). Facilities and activities that need to be addressed first are those which involve moderate to high hazards and impact the Department's mission. Based on these considerations, the Department has selected the following sites and facilities, having equal priority, for initial implementation of the safety management system as described in this plan:

- Hanford/K-Basins and Tank Farms
- Lawrence Livermore National Laboratory/Superblock
- Los Alamos National Laboratory/TA-55 and CMR
- Pantex/Cells and Bays
- Savannah River Site/Canyons
- Rocky Flats/Buildings 371 and 771
- Oak Ridge/Y-12

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Specific plans and schedules for implementation at these sites/facilities will be established by the local Department/contractor management. For prioritizing implementation beyond this initial group, the Department will define specific criteria, such as: remaining facility lifetime; whether the facility/site is new or has had its mission redefined or its safety basis changed; and any specific coordination issues with the application of the Necessary and Sufficient process. The Department intends to develop guidance for prioritizing Department facilities and activities and will include this in the Department Safety Management System Manual. The responsible Secretarial Officers and Field Office Managers will use this guidance to identify priorities (facilities and activities) so that personnel resources can be allocated and budget resources can be provided.

### Deliverables/Milestones

**Commitment 3.1:** For each site designated above, provide a status briefing on the approach and schedule for implementation of the Safety Management system.

Lead Responsibility: Manager, Albuquerque Operations Office (Los Alamos National Laboratory, Pantex)  
Manager, Richland Operations Office (Hanford)  
Manager, Savannah River Operations Office (Savannah River)  
Manager, Rocky Flats Operations Office (Rocky Flats)  
Manager, Oak Ridge Operations Office (Oak Ridge)  
Manager, Oakland Operations Office (Lawrence Livermore National Laboratory)

Applicability: Initial Implementation Facilities

Deliverable: Status Briefing

Due Date: July 18, 1996

### **5.2.4 Establishing Direction and Guidance for System Implementation**

#### Board Issue Description

The Department needs to promulgate requirements and associated direction and guidance for implementing the safety management system. This includes defining roles and responsibilities for carrying it out, and use of ES&H contract clauses.

Department Commitment

4. *Promulgate requirements and associated instructions (Orders/Standards) which provide direction and guidance for the safety management process, including responsibility for carrying it out. These requirements and associated instructions shall be made a contract term.*

Resolution Approach

The Department has recently revised and developed a conceptual-level document to the Manual of Functions, Assignments, and Responsibilities Manual for Nuclear Safety (FAR Manual) which identifies the responsibilities of the Department elements, including the Cognizant Secretarial Officers and Field Element Managers, for carrying out its general functions to ensure environment, safety and health protection. This document does not define the way in which the Department elements assign, delegate, and implement their functions and responsibilities. Much work still needs to be done on this document to roll down the conceptual level document, to ensure linkage with field documents and procedures, and to ensure consistency with recent strategic alignment initiatives that have established Department roles and responsibilities. The Department will update the Department headquarters and field roles and responsibilities in the FAR Manual to ensure assignment of environment, safety and health responsibility and authority to line management.

The Department will review existing contract clauses for assuring safety, health, and environmental protection and recommend any changes necessary to ensure that they support this approach to safety management. The Department will develop contract language requiring the contractor to implement the Department's Safety Management System, including the safety management objective, guiding principles, and functions.

Deliverables/Milestones

<b>Commitment 4.1:</b>	Issue updated amendment to the Department roles and responsibilities in the FAR Manual to be consistent with changes in the safety management organization instituted pursuant to this Implementation Plan.
Lead Responsibility:	Environment, Safety, and Health
Applicability:	Department-wide
Deliverable:	Updated FAR Manual

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Due Date: September 18, 1996

**Commitment 4.2:** Develop and issue for use, contract clauses requiring contractors to follow the safety management objectives, guiding principles, and functions that are defined in the policy and notice (Commitment 1.1) and to describe the contractor's approach to implementing and tailoring the safety management system to their sites/facilities/activities.

Lead Responsibility: Procurement/Environment, Safety, and Health

Applicability: Department-wide

Deliverable: Proposed amendment on DEAR (Department of Energy Acquisition Regulation) Clause

Due Date: September 25, 1996

### **5.2.5 Ensuring necessary Technical Expertise to accomplish Implementation**

#### Board Issue Description

The Department needs to continue to take measures to ensure that we have or will acquire the technical expertise to effectively implement our integrated safety management system.

#### Department Commitment

5. *Continue to take measures to ensure that we have or will acquire the technical expertise to effectively implement our integrated safety management [system].*

#### Resolution Approach

The Department has a considerable amount of technical talent and an experience base which is uniquely suited to the Department's work. Some of this expertise is at Headquarters, and some of it is distributed among the various Department field elements. The Department can do a better job of recruiting, managing and leveraging Department expertise so that it is effectively focused on the most important Department priorities and challenges, such as implementing an integrated safety management system. The Department must develop overall direction to underscore the need for technical and managerial expertise to effectively

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implement the safety management systems. This direction will describe how to utilize the tools available by the Department for sharing, recruiting/acquiring and developing/training technical expertise, including (the first five being used to the maximum extent possible):

- Using a core technical group database to identify and share expertise
- Sending personnel on Operational Readiness Reviews to develop expertise
- Training and qualification programs to develop expertise
- Using the Laboratories and Universities to acquire and develop expertise
- Using Excepted Service Authority to supplement areas of technical deficiencies
- As appropriate, use contracted consultants to acquire expertise

The Defense Programs core technical group model identifies critical skills, documents unique knowledge, and defines programs to maintain the Department's access to personnel having these skills and knowledge. The Defense Programs core technical group database will be expanded to include Environmental Management technical experts. The goal is to identify technical subject matter experts in safety functions which can then be focused on problems where the help is needed. Examples of these technical areas would include seismic, fire protection, and emergency planning.

The Department must identify weaknesses in technical competence which may hinder institutionalization and/or sustenance of effective safety management systems. These areas of weaknesses will be filled through aggressive recruitment and the use of Excepted Service Authority.

Two training initiatives will be undertaken to promulgate information related to developing and maintaining safety management systems. An awareness briefing will be developed and provided to the Department and contractor management at the priority facilities and activities. In addition, a Department course will be developed and made available for complex-wide training on integrated safety management.

The Department continues to take steps (outlined in the Department's Implementation Plan for Recommendation 93-3, Improved Technical Competence) to increase the depth and breadth of technical talent of Department personnel. The efforts undertaken in this Implementation Plan are not intended to encompass or replace the actions taken by the Implementation Plan responding to Recommendation 93-3. However, the Department will revise, as necessary, the qualification standards for the Department qualification program in order to further develop the technical and management competencies required to effectively implement the safety management systems.

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### Deliverables/Milestones

**Commitment 5.1:** Outline a Department approach for improving the technical expertise/competence necessary to implement the Safety Management System. Aspects will include: identification of areas of deficiencies; use Excepted Service Authority to supplement areas of technical deficiencies; training and qualification programs to develop expertise; and revisions, as necessary, to the qualification standards for the Department qualification program.

Lead Responsibility: Implementation Team/Human Resources

Applicability: Department-wide

Deliverable: Department Approach included in the Secretarial Policy Statement and Departmental Notice on Safety Management System (see Commitment 1.1)

Due Date: July 11, 1996 (Draft)  
September 11, 1996 (Final)

**Commitment 5.2:** Establish a Department of Energy core technical group database to ensure effective identification and utilization of the Department's technical expertise.

Lead Responsibility: Human Resources/Defense Programs/Environmental Management

Applicability: Defense Programs/Environmental Management

Deliverable: Action Plan for establishing Core Technical Group

Due Date: December 4, 1996

## **6. Organization and Management**

The Department recognizes that implementation and integration of the Safety Management System described in this plan occurs at many organizational levels, including Department Headquarters/Cognizant Secretarial Officer level, at the Department field office level, and at the contractor site/facility/activity level. This effort will require an integrated, systems

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approach. Given the magnitude of the implementation challenges, the Department will need to clearly and consistently communicate its vision of safety management. Further, the Department must actively solicit feedback and sharing of lessons learned to ensure the Department's safety management system achieves its objectives of consistency, flexibility, and effectiveness.

To oversee commitments and internal management actions outlined in this plan, a dedicated Implementation Team will be established. The Implementation Team, called the Safety Management Implementation Team, will be led by a senior Department official to be named by the Under Secretary. It will be staffed with safety and management professionals from throughout the Department, including the major program offices and field offices. This dedicated Implementation Team will report to the Under Secretary. This team will consult with the Department Standards Committee and other Department committees and organizations with safety management responsibilities. Designated representatives from the priority facilities and respective sites will be identified by site managers to assist and advise the Safety Management Implementation Team and will have direct authority, reporting through their field managers, to implement changes at the priority projects. The Safety Management Implementation Team will take action using the established line management channels. The Implementation Team will also track and reconcile relevant Department programs and initiatives for consistency with the safety management approach outlined in this plan.

Change Control. Complex, long-range plans require sufficient flexibility to accommodate changes in commitments, actions, and completion dates that may be necessary due to additional information, improvements, or changes in baseline assumptions. The Department's policy is to (1) bring to the Board's attention any substantive changes to this implementation plan as soon as identified and prior to passing milestone dates, (2) have the Secretary approve all revisions to the scope and schedule of plan commitments, and (3) clearly identify and describe the revisions and their bases. Fundamental changes in strategy, scope, or schedule will be provided to the Board through formal revision of the implementation plan. Other changes to planned actions will be reported in appropriate correspondence, along with the basis for the changes and appropriate corrective actions. Further organizational changes may be warranted once it is clear how effectively the program is being implemented.

Reporting. In order to ensure that the various Department implementing elements and the Board remain informed of the status of the progress of plan implementation, the Department will provide a quarterly briefing to the Board. The first briefing will be scheduled for August 1996 to cover the activities through July 1996.

## **Appendix A**

### **Acronyms and Abbreviations**

CSO	Cognizant Secretarial Officer
DEAR	Department of Energy Acquisition Regulation
DOE	Department of Energy
ES&H	Environment, Safety, and Health
FAR	Functions, Assignments, and Responsibilities
ORR	Operational Readiness Review
NOPR	Notice of Proposed Rulemaking
N&S	Necessary and Sufficient
R&D	Research and Development
SAR	Safety Analysis Report
S/RIDs	Standards/Requirements Identification Documents



## **Appendix B**

### **References**

1. Defense Nuclear Facilities Safety Board Recommendation 95-2, "Safety Management," Conway to O'Leary, October 11, 1995.
2. Department of Energy Response to Board Recommendation 95-2, O'Leary to Conway, January 17, 1996.
3. Department Standard DOE/EH/0416, "Criteria for the Department's Standards Program," August 1994.
4. Department Policy Statement DOE P 450.3, "Authorizing Use of the Necessary and Sufficient Process for Standards-Based Environment, Safety and Health Management," January 1996.
5. Department Standard DOE-STD-1027-92, "Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23 Nuclear Safety Analysis Reports," December 1992.
6. Department Standard DOE-STD-3009-94, "Preparation Guide for U.S. DOE Nonreactor Nuclear Facility Safety Analysis Reports," July 1994.
7. Department Standard DOE-STD-3011-94, "Guidance for Preparation of DOE 5480.22 (TSR) and DOE 5480.23 (SAR) Implementation Plans," November 1994.
8. Department Order 420.1, "Facility Safety," October 1995.
9. Department Standard DOE-STD-3006, "Planning and Conduct of Operational Readiness Reviews (ORR)," November 1995.
10. Department Standard DOE-EM-STD-5502-94, "Hazard Baseline Documentation," August 1994.
11. Defense Programs Implementation Guidance for Authorization Basis, Revision 1, August 21, 1995.
12. Department report, "Managing the Safety of Defense Nuclear Research and Development Activities," August 1995.

## **Appendix C**

### **Completed and Ongoing Safety Management Activities**

#### Standards and Requirements Identification

- The Department issued Department standard DOE/EH/0416, "Criteria for the Department's Standards Program," in August 1994.
- The Department promulgated Policy Statement DOE P 450.3, "Authorizing Use of the Necessary and Sufficient Process for Standards-Based Environment, Safety and Health Management," in January 1996. This policy statement establishes the Closure Process for Necessary and Sufficient Sets of Standards described in the associated guidance manual as one means of addressing the selection of appropriate standards.
- The Department promulgated a Manual DOE M 450.3-1, "The Department of Energy Closure Process for Necessary and Sufficient Sets of Standards," in January 1996. The Manual describes the Necessary and Sufficient Closure Process and details the steps which must be followed to produce a necessary and sufficient set of standards.
- The Department promulgated a Notice DOE N450.3 in January 1996 which provides requirements and guidance for near-term use of the Necessary and Sufficient process including management requirements and criteria which should be applied to decide where and how to use the process.
- Pilots have been conducted at several facilities and activities to validate the Necessary and Sufficient Closure process. Many lessons have been learned, and these are being incorporated to improve the process.
- Standards/Requirements Identification Document Development and Approval Instruction of August 1994.

#### Laboratory R&D Safety Initiative

- In response to the Board's letter of April 28, 1995, the Department prepared a summary report, "Managing the Safety of Defense Nuclear Research and Development Activities," in August 1995 which describes how the Department and the Weapons Laboratories will proceed in developing an integrated safety management system. The Department and Laboratories have since developed guiding principles and essential functions for integrated safety management.

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### Contract Reform

- The Department is requiring its contractors to begin working in ways that better reflect expectations for ES&H. DOE is moving toward performance-based contracting, where the Department establishes ES&H expectations, and holds contractors accountable and responsible for conducting operations consistent with those expectations. Financial incentives (and penalties, including a clause that puts a contractor's entire fee at risk for serious failures to meet the Department's ES&H expectations) have been put in place in new contracts, as have requirements for integrating ES&H into overall mission planning and execution, evidenced in the contractor's ES&H Management Plan.
- The Department has supported the use of risk-based approaches for identifying and prioritizing ES&H needs. A draft standard "Environment, Safety and Health (ES&H) Management Planning Process and the ES&H Management Plan" has been developed that reflects the consensus of good practice in this area, and that provides a path forward for developing an ES&H Management Plan that is consistent with the to be proposed ES&H contract clause, and that is appropriate to the types of hazards to be encountered in the work by each contractor.
- The contract reform Notice of Proposed Rulemaking to be issued includes a clause which requires contractors to comply with all applicable federal, state, and local laws and regulations. This would include rule Implementation Plans under the Department's nuclear safety rules. The clause also requires contractors to comply with a list of Department directives attached to the contract or alternate standards developed through the Necessary and Sufficient Closure Process or similar processes.

### Orders

- In an effort to clarify and streamline safety requirements, and in concert with the President's National Performance Review, the Department revised and consolidated many of its nuclear safety directives during 1995. Identifying and clarifying the essential safety requirements allows the department and contractors to better focus attention and resources on safety performance. The Board has addressed several issues with the order revision process which the Department is working to resolve.
- The Department issued Interim Policy Statement DOE P 450.2, "Identification, Implementation and Compliance with Environment, Safety and Health Requirements," and is now resolving comments with the Board.

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- Department issued Order 251.1, "Directives System," in October 1995 to better explain the relationship between policy, requirements, guidance, technical standards, and implementation processes and expectations. The associated Directives System Manual, DOE 251.1, which fully describes the Directives System structure and the hierarchy of related documents, was issued in October 1995 and is being discussed with the Board. This manual also describes the Department's Order exemption process.

### Rules

- The Department is in the process of promulgating rules using notice and comment rulemaking under the Administrative Procedure Act. Eight new safety rules are scheduled to be issued in 1996 and are now being discussed with the Board. They include the following topics: Safety Analysis Reports, Unreviewed Safety Questions, Conduct of Operations, Technical Safety Requirements, Training and Qualification, Maintenance Management, Operational Occurrence Reporting, and Radiation Protection for the Public and the Environment. Benefits include Price-Anderson Amendments Act (PAAA) enforcement and public participation.
- The following safety rules have been issued: Enforcement and Adjudication Procedures (10CFR820), Occupational Radiation Protection (10CFR835), Quality Assurance (10CFR830.120), and Contractor Employee Protection Regulations (10CFR708).
- The Department plans to amend the rule for granting exemptions to the nuclear safety rules to provide that the determination of adequate protection of workers, the public, and the environment made in the Necessary and Sufficient Closure Process can be used as a documented basis for seeking an exemption from the rules.
- The Department has issued Interim Policy Statement DOE P 410.1, "Promulgating Nuclear Safety Requirements," and is resolving comments with the Board.

### Hazard Analysis

- The Department issued a Department-wide standard, "Preparation Guide for U.S. DOE Nonreactor Nuclear Facility Safety Analysis Reports," (DOE-STD-3009-94) in July 1994. This standard describes a SAR preparation method for hazard category 2 and 3 nuclear facilities.
- The Department issued a Department-wide standard, "Guidance for Preparation of DOE 5480.22 (TSR) and DOE 5480.23 (SAR) Implementation Plans," (DOE-STD-3011-94) in November 1994.

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- Department Order 420.1, "Facility Safety," was issued in October 1995 to establish facility safety requirements related to nuclear safety design, criticality safety, fire protection and natural hazards mitigation.
- The Department issued a Department-wide standard, "Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23 Nuclear Safety Analysis Reports," (DOE-STD-1027-92) in December 1992 that establishes guidance for the preparation and review of hazard categorization and accident analysis techniques.

### Confirming Readiness

- The Department issued a Department-wide standard, "Planning and Conduct of Operational Readiness Reviews (ORR)," (DOE-STD-3006) in November 1995. This standard provides guidance on approaches and methods approved as acceptable for implementing the requirements of Order DOE O 425.1 which establishes the requirement to conduct Operations Readiness Reviews or Readiness Assessments prior to restart of an existing nuclear facility or startup of a new nuclear facility.

### Functions and Responsibilities

- The Department established the Functions Assignments and Responsibilities (FAR) Manual in October 1994 to identify the responsibilities of the Department elements for carrying out its safety responsibilities. The document has been revised in March 1996 and efforts are underway to link this document with the documents, policies and procedures used by the field.

### Technical Management Plans

- The Department has developed a generic technical management plan identifying the roles, responsibilities, and technical competencies required for the management of environmental restoration contracts.

### Nuclear Explosive Safety

- Nuclear explosive operations are considered by the Department to be a special class of activity due to their potential risk, unique nature, and important national security implications. These operations comprise a limited range of Department activities, and include assembly, transportation, maintenance, storage, testing, and disassembly of a nuclear explosive. A safety management system that addresses nuclear explosive safety has been specified in DOE Order 5610.11 and its predecessors. In response to

Recommendation 93-1, a complete set of safety requirements for nuclear explosive operations is being institutionalized in the 5610-series of Orders and associated guide and standards. The 5610-series of orders was converted from a specification of the nuclear explosive safety program to a specification of a comprehensive, integrated surety management system (safety, security, and control) for nuclear explosive operations.

Independent Oversight

- The Department's independent oversight program was consolidated in December 1994 under the Office of Environment, Safety and Health into the Office of the Deputy Assistant Secretary for Oversight. The major objective of the Office of Oversight is to provide the Secretary of Energy; DOE program, field, and contractor managers; Assistant Secretary for Environment, Safety and Health; Congress; and the public with accurate and comprehensive information on and analysis of the effectiveness of the Department's ES&H programs.

## Appendix D

### Summary of Department Internal Management Actions

The following actions are included in the Implementation Plan as internal management actions which describe the overall direction the Department intends to pursue.

**Action 1.a:** Establish a Safety Management Implementation Team to oversee commitments and internal management actions outlined in this Implementation Plan. The Implementation Team will also follow other relevant Department programs and initiatives for consistency with the Recommendation 95-2 Implementation Plan approach.

Lead Responsibility: Under Secretary

Applicability: Department-wide

Deliverable: Safety Management Implementation Team and Charter

Due Date: May 22, 1996

**Action 1.b:** Identify and then establish a Department-wide process for reconciling and integrating existing directives and ongoing initiatives with the Safety Management System.

Lead Responsibility: Under Secretary/Implementation Team

Applicability: Department-wide

Deliverable: Process description

Due Date: September 25, 1996

**Action 3.a:** Prepare guidance and criteria on prioritizing implementation of the Safety Management System at Department facilities and activities.

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Lead Responsibility: Defense Programs/Environmental Management

Applicability: Department-wide.

Deliverable: Guidance and criteria on prioritization to be included in Safety Management System Manual (Commitment 1.2).

Due Date: September 11, 1996

**Action 3.b:** Prepare Under Secretary guidance to be promulgated to the Heads of Department Program Elements for establishing out year budget priorities for implementing the Safety Management System (using the criteria developed in Action 3.1).

Lead Responsibility: Implementation Team

Applicability: Department-wide.

Deliverable: Under Secretary memorandum regarding prioritization.

Due Date: November 1, 1996

**Action 5.a:** Develop and present an awareness briefing for the Department and contractor management at the priority facilities and activities regarding implementation of safety management systems.

Lead Responsibility: Safety Management Implementation Team

Applicability: Department-wide

Deliverable: Training course conducted

Due Date: June 13, 1996

**Action 5.b:** Develop a training course to be made available for complex-wide training on integrated safety management.

Responsibility: Human Resources/Environment, Safety, and Health



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Applicability: Department-wide

Deliverable: Life-cycle training course on safety management and revisions to other courses as appropriate

Due Date: December 11, 1996

## Recommendation 95-2 Implementation Schedule

Commitment	Responsibility	1996											
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan		
Develop Safety Management System													
1.1-Issue Dept. Policy & Notice - Draft	ESH					Draft ▲							
1.1-Issue Dept. Policy & Notice - Final	ESH									Final ▲			
1.2-Draft Safety Management Sys. Manual	ESH									Draft ▲			
<i>Internal Action</i>													
1.a-Establish Safety Mgt. Proj. Team	US												
1.b-Dept. Directives Identify/Process	ESH												
<b>Define Tailoring Direction</b>													
2.1-Dev. Guidance for Performance of Work	Chair. of DSC												
Prioritize Implementation of SMS													
3.1-Site Status Briefing for Imp. of SMS	Sites												
<i>Internal Action</i>													
3.a-Guidance for Prioritization	DP/EM												
3.b-US Out-Year Priorities	Proj. Team												
Guidance for SMS Implementation													
4.1-Update FAR Manual	ESH												
4.2-Issue Contract Clause	ESH/HR-Proc.												
Tech. Expertise for Implementation													
5.1-Implement Tech. Competence-Draft	Proj. Team/HR												
5.1-Implement Tech. Competence-Final	Proj. Team/HR												
5.2-Core Tech Group Database	HR/EM/DP												
<i>Internal Action</i>													
5.a-Develop SMS Awareness Briefing	Proj. Team												
5.b-Rec. 95-2/SMS Training	HR/ESH												

Project Rec. 95-2 Commitments  
Date: 4/1/96

Internal Management Action Milestones

Commitment Milestones