

Annual Report to Congress

Department of Energy

Activities Relating

to the

Defense Nuclear

Facilities Safety Board

April 1995

Washington, DC 20585

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[SOE LETTERHEAD]

April 19, 1995

The Honorable Albert Gore Jr.
President of the Senate

Washington, D.C. 20510

Dear Mr. President:

Section 316(b) of the Atomic Energy Act of 1954 (42 U.S.C. 2286e(b)) requires the Department of Energy to submit an annual written report to Congress concerning the Department's activities in response to Recommendations and other interactions with the Defense Nuclear Facilities Safety Board. We are pleased to enclose the Department's annual report for calendar year 1994.

The Department recognizes the importance of the nuclear safety issues raised by the Board in its Recommendations. We are working with the Board to ensure that our Implementation Plans address the root causes of the problems, and we are making improvements in these areas a Department priority. We meet with the Board quarterly to discuss the details of these Recommendations and analyze solutions.

The goal of the extensive interactions between the Department and the Board is an important one for ensuring safety at the Department's defense nuclear facilities. Senior Department officials have been assigned personal responsibility for adherence to the Implementation Plans developed by the Department in response to the Board's Recommendations. Other activities contribute to this goal as well, such as aggressive efforts by our independent oversight function and line management to identify and address significant safety concerns. We are also looking at the larger question of nuclear safety oversight of our facilities through the Advisory Committee on External Regulation of Department of Energy Nuclear Safety.

If you have any questions, please contact me or have your staff contact Dr. Tara O'Toole, Assistant Secretary of Environment, Safety and Health, at (202) 586-6151.

Sincerely,

Hazel R. O'Leary

Enclosure

I. INTRODUCTION

This is the fifth Annual Report to the Congress by the U. S. Department of Energy. This report is required to be submitted to the Committees on Armed Services and Appropriations of the Senate and to the Speaker of the House of Representatives each year when the President's Budget is submitted.

The Defense Nuclear Facilities Safety Board was established under section 311 of the Atomic Energy Act of 1954 in part to review the content and implementation of standards relating to the design, construction, operation and decommissioning of the Department's defense nuclear facilities. In 1992, the Congress extended the Board's jurisdiction to include facilities involved in the assembly and testing of nuclear explosives. The Board makes Recommendations to the Secretary of Energy that it considers necessary to protect public health and safety. These Recommendations may be accepted or rejected in whole or in part by the Secretary. If accepted, the Department must prepare an Implementation Plan describing the actions to be taken.

The Secretary recognizes the importance of the nuclear safety issues raised by the Board in its Recommendations, and has made Departmental improvement in these areas a matter of personal interest. The Secretary has convened regular quarterly meetings with the Board at which the details of these Recommendations have been discussed and solutions analyzed. Senior Departmental officers have been assigned personal responsibility for adherence to Implementation Plans.

The Annual Report summarizes the activities of the Department of Energy in response to the Defense Nuclear Facilities Safety Board. The Annual Report discusses the key safety issues the Department is addressing and the actions it is taking.

This Annual Report is organized as follows:

- Section I, **INTRODUCTION**, describes the layout and content of the Report.
- Section II, **KEY NUCLEAR SAFETY ISSUES**, discusses the principal nuclear safety issues and the activities the Department is implementing to address these issues.
- Section III, **SUMMARY OF ACTIVITIES RESPONSIVE TO THE DEFENSE NUCLEAR FACILITIES SAFETY BOARD**, discusses the Board's Recommendations submitted to the Department in 1994 and tabulates the status of all Recommendations submitted by the Board since its inception in 1989. The section also provides a summary of other interactions between the Board and the Department.
- Section IV, **DEPARTMENTAL INITIATIVES**, outlines the proactive activities that the Department is taking to continuously improve the nuclear safety of the Defense Nuclear Complex.
- Section V, **CONCLUSIONS**, provides the Department's analysis of its progress in improving safety, outlines those areas that will continue to receive increased emphasis in 1995 and details the Department's plans for the coming year.

2. KEY NUCLEAR SAFETY ISSUES

The Board, an independent body within the Executive Branch, recommends to the Secretary of Energy those specific measures that the Board considers should be adopted to ensure the adequate protection of the public health and safety. Since its inception, the Board has had a significant impact on the Department's nuclear safety performance by providing Recommendations for improvement. These Recommendations have played an important role in improving the Department's nuclear safety programs and operations.

The Department integrates the Board's Recommendations into its activities while continuing to address conventional industrial safety issues, such as construction accidents and management of chemical hazards. The Department must also continually evaluate the costs of its operations and ensure it makes the best use of its available assets in this time of reduced resources.

The following areas are considered keys to improvement:

A. Development of and compliance with nuclear safety standards

The Department is making progress in establishing a "standards based" culture where operations are governed by technically correct, complete and safe requirements documents. In the past, the Department had utilized an "expert based" culture, where operational necessity dictated reliance upon the undocumented expertise of individuals. As a result, different sites completed the same tasks according to different procedures and safety standards. Today the Department is focused on conducting operations in compliance with a set of standards that provide a definite set of explicit expectations.

The Department has developed a Nuclear Safety Policy and Standards Program to ensure consistency in implementing the Department's Safety Rules and Orders. The Department has also formed a "Standards Committee" comprised of senior members of each Department Program Office to ensure that improvements in the nuclear safety codes and standards program continue. The Department has established aggressive schedules for identifying necessary and sufficient environmental, safety and health standards and assessing their implementation for environmental restoration and waste management activities and facilities.

In addition, the Department is improving operational compliance with these standards. A key feature of this program is the Standard/Requirements Identification Documents that identify those nuclear safety requirements necessary for safe operation. Requirements Identification Documents are management tools developed by the offices of Defense Programs and Environmental Management, in response to Board Recommendation 90-2, to complete facility-specific requirements. The documents must be consistent with Department policies, Rules, and Orders, and provide a basis for assessments and appropriate enforcement actions. Line Management is directly responsible for ensuring compliance with these requirements. Although the implementation of this initiative has been slower than was first expected, continued emphasis on it will carry the program to completion and set the course for the future of a "standards-based" culture.

The Department is beginning to use contract reform as an effective method of ensuring compliance with nuclear safety standards. New contracts will include applicable Department of Energy Acquisition Regulation clauses relating to compliance with nuclear safety requirements. The Department is developing a standard clause to require contractors operating defense nuclear facilities to comply with the approved Standard/Requirements Identification Documents. These requirements would flow through to all subcontracts. The Department is also providing financial incentives to contractors for continuous improvement in their conduct of operations. In addition, the Department is encouraging contractors to promote occupational safety and health initiatives by including award fee determination factors relating to compliance with nuclear safety standards. This approach will lead to a greater sense of ownership by the contractor management and their staffs.

2. Training, qualification and retention of technical staff

The Department recognizes that a well defined set of standards for nuclear safety can only be effective if there are trained and qualified, technically competent personnel to use them. The Board observed that the single most serious and far-reaching problem affecting safety of Department of Energy defense nuclear facilities is the difficulty in attracting and retaining personnel who are qualified by technical education and experience. In response to multiple Recommendations from the Board in this area, the Department has consolidated training and qualification issues into a single Implementation Plan that will allow a more efficient and effective solution. To lay the foundation for nuclear facility contractor training and qualification, the Department is promulgating 10CFR830.330 ***Personnel Selection, Qualification, Training and Staffing Requirements at Department of Energy Reactor and Nonreactor Nuclear Facilities***, which is based on Order 5480.20. This rule is scheduled to become effective in the spring of 1995. The Department has named a senior-level and broadly experienced technical management expert to coordinate all the technical personnel initiatives and to manage the programs for strengthening Departmental training and qualifications. This has established clear internal leadership for ensuring that the technical capability of Department and contractor personnel associated with defense nuclear facilities continues to improve. The Department is standardizing its approach to training and qualification of technical personnel through a clearly defined Qualification Program for Technical Personnel. This program will contain twenty-four standards consisting of one General Technical Base Qualification Standard and twenty-three Functional Area Standards. These standards are scheduled to be issued by May 1995 and be implemented by December 1995. An Order to institutionalize this process is scheduled for issue in May 1995. The baseline assessment and the resulting recommendations are currently in review.

The Department is also improving the status of the Management and Operating contractor training by implementing Training Implementation Matrices. A master schedule is in place, and twenty-nine plans have been recently approved. Guidance has been provided to Federal Training Managers to assist them in the review of contractor's programs.

The Department has requested and received legislative authority for Excepted Service Appointment Authority to recruit and retain

qualified personnel. The guidelines for implementing Excepted Service were issued in November 1994. The Department is also expanding internal educational opportunities for the technical staff and expanding the scope and concept of the current Defense Program Fellowship Program. A needs assessment of Defense Program's long-term personnel requirements was completed in February 1995. This assessment is not only addressing staffing levels but also evaluating whether the right people, right positions and the right skill mix exist. Additional hiring authority and flexibility are meeting short-term critical personnel needs.

The Office of Environmental Management has aggressively pursued staffing 850 positions allocated to the field to support safe and efficient site operation. As of the end of December 1994, almost 600 of these positions had been filled from a qualified national pool. For positions at the GS-15 level or higher, a process was developed which involved the selecting official, field office Assistant Manager mostly affected by the position, and the appropriate Deputy Assistant Secretary in Headquarters. This process was approved by the Assistant Secretaries for Environmental Management and Human Resources as well as the Associate Deputy Secretary for Field Management. The Office of Environment, Safety and Health has filled 35 of their 100 new allocated positions. Most of these new hires will assist the contractor oversight function, and these personnel will be permanently stationed at 13 field locations.

In the specific area of nuclear weapons design and operations, the Department is moving ahead with a program to identify critical weapons skills and document unique weapons knowledge. This program is scheduled to be completed during 1995.

3. Conduct of Operations

In 1994, the Department implemented its standardized approach to establishing the readiness of a facility for startup or restart through in-depth evaluations. Department of Energy Order 5480.31, **Startup and Restart of Nuclear Facilities**, provides a clear and effective set of requirements to govern facility operational readiness evaluations, and DOE-STD-3006-93, **Planning and Conduct of Operational Readiness Reviews**, establishes guidelines for performing these reviews. In April 1994, the Department issued the revised standard, which incorporated comments from the Board. In July 1994, the Department forwarded to the Board a draft revision to the Order that incorporated additional comments from the Board and lessons learned from the first series of completed Operational Readiness Reviews. The issuance of the revised Order resolving further comments from the Board and field offices is imminent.

The Albuquerque Operations Office completed interim guidance for the Operational Readiness Review process for weapons assembly/disassembly operations in September 1994, and the review was submitted to the Board with the 8th Bimonthly Progress Report. The Nevada Operations Office is currently developing interim guidance for the Operational Readiness Review process for weapons testing, and the final document has been provided to the Board.

The Department has made significant progress in the transition from Orders to Rules in the area of conduct of operations. The following Rules will be published and become effective in the spring of 1995: 10CFR830.122, **Defect Identification**; 10CFR830.340, **Maintenance Management Program**; 10CFR830.350, **Occurrence Reporting and Processing of Operations Information**; 10CFR830.310, **Conduct of Operations for Department of Energy Facilities**; 10CFR830.112, **Unreviewed Safety Questions**; and 10CFR830.120, **Quality Assurance Rule**.

The Department has also completed a comprehensive analysis of the Facility Representative Program. The Facility Representative is responsible for direct oversight of contractor personnel and operations, and it is the Department's onsite first line of management. As a result of this review, the Department established a formal program to select, train and assign personnel to defense nuclear facilities as Facility Representatives. Currently, 70% of the identified positions are filled, and all vacancies will be staffed by the end of 1995. This program is a cornerstone in the Department's ability to oversee contractor operations and ensure safe operation of Department facilities.

4. Safe management and storage of nuclear waste

As the mission of remediation of defense nuclear facilities and the safe storage of nuclear weapons material has grown, a number of concerns have been raised by the Board. Board recommendations directed at the Hanford High Level Waste Tanks have emphasized management focus on reducing the risks associated with the storage of high level nuclear waste in aging tanks. Based upon another Board Recommendation, the Department has characterized and removed plutonium from the ventilation ducting in the major plutonium processing building at Rocky Flats. In the process of correcting this problem, the Department has developed new remediation technologies and techniques that will be used in future clean-ups.

The Department has begun activities at several sites to enhance the safe management and storage of nuclear waste. At the Savannah River Site, the Department placed in service an engineered facility using concrete vaults. A radiological performance assessment demonstrating compliance with long term public protection requirements was completed and approved. Specific actions at both Rocky Flats and Hanford have been taken in order to improve the safe interim storage of transuranic waste.

Board Recommendation 94-1 addresses the need to improve the schedule for remediating a number of situations involving the storage of fissile nuclear material. The Department fully supports the need to place in a state suitable for interim storage the substances formerly used in the manufacture of nuclear weapons. The Implementation Plan for this Recommendation includes development of an Integrated Program Plan that will include detailed schedules for specific activities. The Department will provide critical path activities, decision points and resource considerations. Preparation of the Integrated Program Plan will be completed by July 1995.

The Department has also initiated several studies for characterizing some of the more significant safety and health issues vulnerabilities. The studies include the Spent Nuclear Fuel Vulnerability Study (completed in 1993); the Chemical Vulnerability Study and the Plutonium Environment, Safety and Health Vulnerability Assessment Project, both of which are scheduled to be completed

and published in early 1995. These last two studies are an integral part of the Department's efforts to raise its commitment to chemical safety to the same level as nuclear safety, to understand and manage hazardous chemicals more effectively, to prevent the continuation of existing vulnerabilities and to improve the quality and effectiveness of all safety programs.

5. Systems engineering and life cycle management

The Board recommended that the Department adopt a Systems Engineering Management approach in the nuclear defense complex. This approach ensures that the rules, codes and standards are consistent through the different phases of the life cycle: design, construction, operation, decommissioning and restoration. The Department has previously addressed this issue in the Implementation Plan for Recommendation 92-4 which was submitted to the Board in final form in March 1994. This plan adopts the systems engineering methodology site-wide at Hanford. Systems engineering principles are also being used in the development of the Integrated Program Plan for Recommendation 94-1.

6. Proactive management and leadership to improve safety and health

In addition to its responses to Board Recommendations and the Implementation Plans, the Department is taking action to improve the overall health and safety programs of the defense nuclear complex. The Department's Safety Management Program is based on five principles:

- Line Management Responsibility for Safety
- Comprehensive Requirements
- Competence Commensurate with Responsibilities
- Independent Oversight Enforcement

Each principle is crucial to the effectiveness of a safety management program.

Clear and unambiguous lines of authority and responsibility must be established at all organizational levels. The Department has compiled a Manual of Functions, Assignments and Responsibilities for Nuclear Safety and distributed the manual to all managers. The manual ensures that clear lines of authority and responsibility are well-defined. The basis for the manual is contained in current Department requirements documents, including Orders and other directives. Department managers are accountable for their respective responsibilities. The Under Secretary has stated to the Board that one of his principal responsibilities is to ensure that the Manual of Functions, Assignments and Responsibilities for Nuclear Safety is implemented effectively. Both line management self-assessments as well as independent oversight activities will review implementation of the manual. To ensure implementation of the manual, on December 2, 1994, the Secretary required the Department program offices and field managers to acknowledge their compliance with their nuclear safety responsibilities. The execution of these responsibilities will be considered in the performance appraisals and bonus awards for Department senior managers.

The Department's policy is that nuclear facilities must be designed, constructed, operated, maintained, decommissioned, decontaminated and environmentally restored in a manner that will prevent or minimize potential radioactive releases. This policy necessitates a comprehensive set of requirements. The Department is improving its standards and directives by replacing Orders with Rules and incorporating a broader range of these requirements into contracts.

The safe operation of facilities depends upon the availability of personnel that are qualified by technical education and experience. More than eighteen months ago, the Department began a Mentoring Program to help improve environmental health and safety requirements. Twelve experienced nuclear safety experts have been working directly with management and operations personnel. This program has been expanded recently to other facilities to improve safety throughout the defense nuclear complex.

A strong and effective safety oversight program must exist to verify that Department personnel meet established requirements which is independent of other Department programs, including self-assessments by line organizations and technical assistance. The Office of the Assistant Secretary for Environment, Safety and Health is responsible for the Department's oversight function. This office is establishing policies that will provide a high level of confidence that oversight will continue to be independent of line management and the Environment, Safety and Health offices that provide policy development and technical assistance. The Department is incorporating these policies into its protocols and procedures.

Strong enforcement is a key nuclear safety guiding principle that fortifies and binds the other four principles. The Atomic Energy Act and the Department of Energy Organization Act give the Department broad authority to protect the safety and health of its workers and the public. The Department intends to make the transition from Orders to Rules in an integrated fashion to ensure a solid basis for enforcement actions such as civil penalty assessment. The Department has accelerated its schedule for this rulemaking process. The remaining high priority Phase I nuclear safety rules should be issued by 1995. Notices of proposed rulemaking for Phase II nuclear safety rules are scheduled to be issued by the end of 1995.

3. SUMMARY OF ACTIVITIES RESPONSIVE TO THE DEFENSE NUCLEAR FACILITIES SAFETY BOARD

A. Status of Recommendations

1. Recommendations issued in 1994

a. Recommendation 94-1, Improved Schedule for Remediation in the Defense Nuclear Complex:

Recommendation 94-1 expressed the Board's concerns that, with the freeze in the manufacture of nuclear weapons,

imminent hazards could arise in the next two or three years unless specific problems are corrected. The most serious hazards involve the storage of specific liquids and solids containing fissile material and other radioactive substances in spent fuel storage pools, reactor basins, reprocessing lines and various other buildings once used for processing and weapons manufacture. Specific issues were raised concerning several large tanks, processing canyons and basins at the Savannah River site; K-East Basin at the Hanford site; the 603 Basin at the Idaho National Engineering Laboratory; and other types of containers at Rocky Flats, Hanford, Savannah River and Idaho. The Board is concerned that the pace of remediation is too slow and that an integrated program plan to address this issue should be formulated on a high priority basis.

Recommendation 94-1 was approved by the Board and issued on May 26, 1994. On August 31, 1994, the Department accepted Recommendation 94-1 and assigned the responsibility for the formulation of the Implementation Plan to the Assistant Secretary for Environmental Management. The Implementation Plan was submitted to the Board on December 5, 1994, and subsequently withdrawn on January 26, 1995. On February 28, 1995, the Department resubmitted the Plan as an Integrated Program Plan and committed the Department to accomplishing this work as an important priority. The goal of the Implementation Plan was to develop an integrated program plan which provides optimal safety management of plutonium residual activities. There was extensive field participation in the Implementation Plan development. A Research Committee and Trade Study Group are being formed to review technical and process needs to place materials into stable states, and the trade Study Group will specifically define technically defensible prioritization of alternatives.

2. Recommendation 94-2, Conformance with Safety Standards at Department of Energy Low Level Nuclear Waste and Disposal Sites:

Recommendation 94-2 expressed the Board's concerns with the programs for the burial of low-level radioactive waste at defense nuclear facilities. Based on their assessment of the volume of waste buried prior to 1988, the lack of complete compliance with current Department of Energy Order 5820.2A, *Radioactive Waste Management*, and the likely increase in future waste volumes, the Board recommended a comprehensive complex-wide review of this issue. The dimensions of the problem and the corrective actions to address past, present and future problems need to be assessed.

Recommendation 94-2 was approved by the Board on September 8, 1994 and forwarded to the Department for consideration. On October 28, 1994, the Secretary accepted the Recommendation in full. The Implementation Plan was submitted to the Board on March 31, 1995.

3. Recommendation 94-3, Rocky Flats Seismic and Systems Safety:

Recommendation 94-3 identifies the Board's concerns with the Systematic Evaluation Program being conducted at Rocky Flats. This program, which was initiated at the site in response to Recommendation 90-5, is a review of older facilities using current safety standards in order to assure safe operations. As the mission of Rocky Flats has changed, the Implementation Plan for this Recommendation has also been revised to address more directly the facility's changing role. Building 371 is now being considered for a unique role as the storehouse for the largest single accumulation of plutonium in the Department complex. There is a need to formulate an Integrated Program Plan to identify the potential hazards from natural phenomena at Building 371 and to establish the means to protect the building and its contents.

This Recommendation was approved by the Board on September 28, 1994 and forwarded to the Department for consideration. On November 18, 1994, the Department accepted this Recommendation. The Assistant Secretary for Environmental Management is currently developing the Implementation Plan for submission to the Board in April 1995.

4. Recommendation 94-4, Criticality Safety Deficiencies at the Oak Ridge Y-12 Facility:

Recommendation 94-4 summarizes the Board's concern with the conduct of operations at the Y-12 Facility at Oak Ridge. In previous Recommendations, the Board has stated that facilities scheduled for continued operations should develop a style and level of conduct of operations similar to those at commercial nuclear facilities. After monitoring the implementation of these requirements at the Y-12 Facility and a number of recent events, the Board recommended that more aggressive and comprehensive actions be taken to bring the conduct of operations to a satisfactory level.

This Recommendation was forwarded to the Department on September 27, 1994. On November 18, 1994, the Secretary accepted this Recommendation. The Implementation Plan was submitted on February 24, 1995. The Department also notified the Board that specific actions had been taken to resolve immediate nuclear criticality and conduct of operations deficiencies at the Y-12 Facility. The Department has also forwarded a plan detailing the specific requirements for the restart of Y-12 operations and a report explaining how the deficiencies had previously gone undetected.

5. Recommendation 94-5, Integration of Department of Energy Safety Rules, Orders, and Other Requirements:

This Recommendation states the Board's concern that during the Department's transition from nuclear Safety Orders to Rules, commitments made to achieve compliance with the requirements in the Orders could be relaxed.

This Recommendation was forwarded to the Department on December 29, 1994, and was accepted by the Secretary on February 21, 1995. The Assistant Secretary for Environment, Safety and Health is responsible for the development of the Implementation Plan and its submittal in June 1995.

2. Summary Status of Recommendations

Since 1989 the Board has submitted thirty-one Recommendations to the Department. At the end of calendar year 1994, twenty-one Recommendations remain open, and ten have been closed. The specific status of all Recommendations is provided in [Table I](#).

3. Report on Implementation Plans that require more than one year to complete.

- a. Recommendation 93-1, Standards Utilization in Defense Nuclear Facilities, was issued by the Board on January 21, 1993. The Department accepted the Recommendation on April 27, 1993; the Implementation Plan was submitted on July 19, 1993 and conditionally accepted by the Board on July 30, 1993. The revised Implementation Plan was submitted on August 19, 1993.

Further discussions with the Board led to the Department's decision to conduct the Nuclear Explosive Safety Study. The Secretary developed and approved the Nuclear Explosive Safety Study Corrective Action Plan on September 30, 1994. The Department proposed and the Board accepted a management structure to integrate the Implementation Plan for 93-1 and the Corrective Action Plan. The completion of these actions will take more than one year. The expected closure date for this Implementation Plan is now June 1995.

2. Recommendation 93-2, The Need for Criticality Experiment Capability, was issued by the Board on March 23, 1993. The Department accepted the Recommendation on May 12, 1993; the Implementation Plan was submitted on August 10, 1993 and accepted by the Board on September 30, 1993.

The completion of the Implementation Plan will take more than one year, as the Department completes the assessment of the criticality capability needed to support current and future Department operations. The Department is currently developing the closure date for this Implementation Plan.

3. Recommendation 93-3, Improving Technical Capability in Defense Nuclear Programs, was issued by the Board on June 1, 1993. The Department accepted the Recommendation on July 23, 1993; the Implementation Plan was submitted on November 4, 1993 and accepted by the Board on November 5, 1993.

The actions itemized in the Implementation Plan apply across all technical elements of the Department. The completion of these actions will take longer than one year and is scheduled for December 1995.

4. Recommendation 93-4, Environmental Restoration Management Contracts, was issued by the Board on June 16, 1993. The Department accepted the Recommendation on August 6, 1993; the Implementation Plan was submitted on November 8, 1993 and accepted by the Board on November 18, 1993.

The completion of the required actions of the Implementation Plan will take longer than one year. This is primarily due to operational and procedural problems encountered during the restart of the stabilization of the Uranyl Nitrate Hexahydrate solutions at Fernald.

Other activities that remain open include the qualification of Fernald Facility Representatives scheduled for completion by August 15, 1995 and delivery of the revised Department of Energy Order 4700.1.

5. Recommendation 93-5, Hanford Waste Tank Characterization Studies, was issued by the Board on July 19, 1993. The Department accepted the Recommendation on August 31, 1993; the Implementation Plan was submitted on January 21, 1994 and accepted by the Board on March 25, 1994.

The extensive sampling activities will take more than one year to complete. The scheduled completion date is October 1996.

6. Recommendation 93-6, Maintaining Access to Nuclear Weapons Expertise in the Defense Nuclear Facilities Complex, was issued by the Board on December 10, 1993. The Department accepted the Recommendation on February 2, 1994; the Implementation Plan was submitted on July 5, 1994 and conditionally accepted by the Board on August 2, 1994.

The requirements for the collection of information for the Integrated Safety, Skills and Knowledge Platform, the revision of the modification and disassembly procedure development process and the updating of the disassembly procedures will take more than one year to complete. Completion is scheduled for September 1995.

7. Recommendation 94-1, Improved Schedule for Remediation in the Defense Nuclear Complex, was issued by the Board on May 26, 1994. The Department accepted the Recommendation on August 31, 1994; the Implementation Plan was submitted on December 5, 1994 and is currently under review by the Board.

The extensive remediation will take longer than one year.

2. Meetings, Site Visits and other Board Interactions

To support collection of information and data for developing and monitoring the implementation of Recommendations, the Department supported over 200 meetings and site visits by the Board and its staff. The Department provides the Board with unrestricted access to all defense nuclear facilities for their activities.

The Department also responds to letters forwarding Trip Reports from the Board staff or requesting action or information on specific matters. In 1994, the Department acted on over 100 separate pieces of correspondence from the Board in addition to Recommendation and Implementation Plan requirements.

4. DEPARTMENTAL INITIATIVES

A. Secretary's Quarterly Discussions

In order to facilitate communications between the Secretary, the Under Secretary, the Assistant Secretaries and the Board, quarterly informal discussions are conducted between the executive management team from the Department and the Board. In this forum, the participants openly discuss their opinions on topics of interest to the Board and the Department. This process was started in the second quarter of 1994 and resulted in discussions on July 29 and November 9, 1994.

The topics for discussion are reviewed and approved by the Board and the Secretary before the discussion. The primary topics have been the Department's progress in formulating Implementation Plans in response to the Board's Recommendations and in reaching closure on the commitments in the accepted Implementation Plans.

These discussions have raised the level of awareness concerning Board issues throughout the Department and have improved communications between the Board and the Department. Based on this success, discussions have been scheduled through 1995 in order to assure the availability of the Secretary, her staff and the Board.

2. Guidelines for Interfacing with the Board

The Department first published the *Guidelines for the Department of Energy Interface with the Defense Nuclear Facilities Safety Board* in 1993. The document provides guidance for conducting interface activities with the Board. The Guidelines were revised and re-issued in July 1994. The revision incorporated good practices for development of Implementation Plans.

The Guidelines provide clear direction to the Departmental Representative to the Board in all regular and continuing interactions between the Board and the Secretary. It also designates the Departmental Representative's Office as the coordinator for all correspondence with the Board. This office is currently implementing the Information Management and Safety Issue Management Systems to allow an orderly processing of all written correspondence and testimony and to ensure that a means is available to allow the Department to manage its commitments to the Board.

3. Information Database (Hypertext)

The Department has created an Information Database (Hypertext) which makes available all Board Recommendations; Department Implementation Plans; correspondence, testimony, and internal memoranda between the Department and the Board; Board Policy Statements and Annual Reports; Department Annual Reports on Board Related Activities; technical issue papers by the Board's Staff; and Department Nuclear Safety Orders. Department personnel at selected locations in the Headquarters Building and other Offices can access the database, which is updated quarterly.

4. Safety Issue Management System

The Departmental Representative's Office began a program to identify all commitments made to the Board, including all commitments made in Implementation Plans as well as other documents submitted to the Board. The Safety Issue Management System provides focus on safety as well as on issue closure. It integrated efforts across the Department and coordinates these efforts as the primary contact with the Board. The commitment tracking function is facilitated through the database system that has been enhanced to record the full range of information relevant to making, tracking, and closing commitments.

The Departmental Representative has developed a process to address the existing backlog of Department commitments. This process includes steps to fully identify and characterize the existing backlog; to confirm current status and responsible managers; to group and consolidate commitments consistent with the driving safety issues; to identify commitments that have been overcome by events; and to prioritize remaining safety issues and commitments consistent with anticipated safety benefits and resource requirements. The system should be fully operational by summer 1995.

5. Department Reorganization

The Office of the Assistant Secretary for Environment, Safety and Health has been responsible for many years for providing guidance and assistance to line management on EH programs. The Department is very aware that line management support and the oversight responsibilities of the Office of the Assistant Secretary for Environment, Safety and Health must be clearly separated. The Department has concentrated the oversight activities under the Deputy Assistant Secretary for Oversight, who reports to the Secretary through the Assistant Secretary for Environment, Safety and Health. This is to ensure that those responsible for overseeing environmental, safety

and health activities report to a management level independent from those with line management support responsibilities.

6. Departmental Points of Contact

At a July 9, 1994 meeting, the Secretary and the Board agreed that the primary points of contact in the Offices of Defense Programs and Environmental Management, for all Board related matters, would be the respective Principal Deputy Assistant Secretaries. The Secretary also stated that because of the wide ranging impact of Recommendation 94-1, Improved Schedule for Remediation in the Defense Nuclear Complex, the Under Secretary would oversee the Implementation Plan and the activities conducted under it.

7. Principal Deputy Assistant Secretary Meetings

At regularly scheduled meetings, the Principal Deputy Assistant Secretaries and other senior Department managers discuss Board issues, commitments, schedules, and problems. These meetings ensure that Board related matters continue to receive the proper attention and priority in the Department.

5. CONCLUSIONS

A. Areas of Improved Performance in 1994

Overall, the Department's working relationship with the Board has continued to improve throughout 1994. The Department has implemented the Guidelines for the Department's interface with the Board which require that the Departmental Representative coordinate activities to ensure the quality, timeliness and responsiveness in each interaction with the Board. Environmental Management and Defense Programs are developing Office-specific internal guidelines that will supplement the Department's Guidelines.

Senior management is directly involved in the development of the Implementation Plans and the resolution of Board concerns. The Secretary's quarterly meetings with the Board, the central coordination by the Office of the Departmental Representative to the Board, the Principal Deputy Assistant Secretary's meetings and the weekly management meetings covering Board issues attended by the Cognizant Secretarial Officer's representatives ensure the continuing attention of management on the resolution and closure of commitments.

Significant progress has been made in the development of standards and the use of these standards in all facets of the Department's operation. Line management is actively involved in ensuring compliance with the standards. There has also been progress in the transition from Orders to Rules. Everyone involved in this process is working to ensure that there is no relaxation in compliance during this transition.

2. Initiatives for 1995

The Department is committed to full cooperation with the Board and to aggressively identifying and correcting significant safety issues. The Secretary will continue to move ahead with her personal initiatives with the Board, and senior management will continue to be directly involved in the management and resolution of the issues raised by the Board.

In 1995, the Department will complete a management plan describing the path forward for promulgation of Rules based on requirements currently in nuclear safety Orders. The schedule will be accelerated to allow the transition to be completed within a two year period. It is anticipated that the process of identifying the pertinent safety Order requirements and promulgating them as Rules will complete by the end of 1998.

The Qualification Program for Technical Personnel will meet its significant milestones in 1995. The specific qualification standards are scheduled to be completed and issued by May 1995. The Department expects that the program, using these standards as the basis, will be implemented by December 1995. The long-term personnel needs assessment was completed in February 1995, and the Department will use this and its authority for Excepted Service Appointment to recruit and retain the qualified technical personnel.

The Department intends to improve its performance in meeting milestones and commitments. The Department is putting in place a commitment management information system that will track the many individual action items that make up commitments. The Department will then be able to more efficiently and effectively manage the resources available and focus on implementing Board Recommendations.

**TABLE 1
STATUS OF BOARD RECOMMENDATIONS**

RECOMMENDATION	SUBJECT	CLOSED	SCHEDULED COMPLETION
90-1	Savannah River Operations Training	1992	
90-2	Standards Compliance		February 1997
90-3	Hanford Waste Tanks	1992	
90-4	Rocky Flats Operational Readiness Reviews		Completion date not established
90-5	Systematic Evaluation Plans		September 1996

90-6	Rocky Flats, Plutonium in the Ventilation Ducts		No Schedule Commitment
90-7	Hanford Waste Tanks		September 1995
91-1	DOE Safety Standards Program	1992	
91-2	Reactor Operations and Management Plan	1992	
91-3	Waste Isolation Pilot Plant (WIPP)	1992	
91-4	Rocky Flats, Bldg 559 Operational Readiness Review	1992	
91-5	Savannah River K Reactor Power Limits	1993	
91-6	Radiation Protection		October 1996
92-1	Operational Readiness of the HB-Line at Savannah River	1993	
92-2	Facility Representatives		Completion date not established
92-3	HB-Line Operational Readiness Reviews	1993	
92-4	Multi-Function Waste Tank Facility at Hanford (MWTF)		No Schedule Commitment
92-5	Discipline of Operations during Changes		No Schedule Commitment
92-6	Operational Readiness Reviews		March 1995

**TABLE 1 (Continued)
STATUS OF BOARD RECOMMENDATIONS**

RECOMMENDATION	SUBJECT	CLOSED	SCHEDULED COMPLETION
92-7	Training and Qualifications	1993	
93-1	Standards Utilization in Defense Nuclear Facilities		June 1995
93-2	The Need for Criticality Experiment Capability		Completion date not established
93-3	Improving Technical Capability in Defense Nuclear Programs		December 1995
93-4	Environmental Restoration Management Contracts		Completion date not established
93-5	Hanford Waste Tank Characterization Studies		October 1996
93-6	Maintaining Access to Nuclear Weapons Expertise in the Defense Nuclear Facilities Complex		September 1995
94-1	Improved Schedule for Remediation in the Defense Nuclear Complex		Completion date not established
94-2	Conformance with Safety Standards at DOE Low Level Nuclear Waste and Disposal Sites		To be assigned in the Implementation Plan
94-3	Rocky Flats Seismic Systems Safety		To be assigned in the Implementation Plan
94-4	Criticality Safety Deficiencies at the Oak Ridge Y-12 Facility		To be assigned in the Implementation Plan
94-5	Integration of DOE Safety Rules, Orders, and Other Requirements		To be assigned in the Implementation Plan