

[DOE LETTERHEAD]

July 29, 1996

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

Dear Mr. Chairman:

Enclosed is the quarterly progress report on implementation of Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 94-2 for the period from April 1, 1996, to June 30, 1996. This document is a deliverable pursuant to the commitment in Task Initiative III.C.2 identified in the Department of Energy's Implementation Plan, Revision 1, for DNFSB Recommendation 94-2.

As discussed in the progress report, the Department submitted the revised Implementation Plan for Recommendation 94-2 to the Board on May 7, 1996, and has continued to make progress in key task areas, including completing the initiatives for the complex-wide review.

The body of the progress report contains a status table on the task initiatives that were due during the reporting period. A status table on all of the task initiatives is included as an appendix. Both of these tables refer to due dates in the revised Implementation Plan.

Sincerely,

Stephen Cowan
Deputy Assistant Secretary
for Waste Management
Environmental Management

Enclosure

Quarterly Report

for

Implementation Plan

Defense Nuclear Facilities Safety Board

Recommendation 94-2

**Conformance with Safety Standards at
Department of Energy
Low-Level Nuclear Waste and Disposal Sites**

April 1 through June 30, 1996

Quarterly Report for Implementation Plan Defense Nuclear Facilities Safety Board Recommendation 94-2

1.0 INTRODUCTION

The Department of Energy (DOE) issued the "Implementation Plan, Defense Nuclear Facilities Safety Board Recommendation 94-2" in March 1995. In June 1995 the Defense Nuclear Facilities Safety Board (DNFSB) sent the Department-a letter which conditionally accepted the Implementation Plan.

This is the third report on the status of task initiatives as described in the Implementation Plan that the Department is undertaking to improve its management of low-level waste (LLW). This report covers the period from April 1, 1996, to June 30, 1996.

During the current reporting period DOE revised the Implementation Plan (Rev. 1) and submitted it to the DNFSB on May 7, 1996, while also making progress in key task areas. All 94-2 Implementation Plan deliverables due during the period covered by this report were issued and transmitted to the Board within schedule.

The revised Implementation Plan follows the same general approach as the original Implementation Plan, identifying initiatives in six task areas:

- Systems Engineering
- Complex-Wide Review
- Regulatory Structure and Process
- Radiological Assessments
- Low Level Waste Projections
- Research and Development

2.0 OVERVIEW

2.1 General Progress

During this quarter, the revision of the Implementation Plan was completed and submitted to the DNFSB. The Implementation Plan was revised through the development of improved logic in the relationships between task initiatives, and the development of further resource loading estimates and planning for completing the initiatives. The revised Implementation Plan also reflects schedule refinements to better coordinate with ongoing efforts to revise the DOE Order on Waste Management (Order 5820.2A). A revised Project Management Plan reflecting the revisions to the Implementation Plan was also prepared, detailing the resources and approaches for completing the 94-2 task initiatives, and was delivered to the DNFSB during this reporting period.

Task initiatives under the Complex-Wide Review were completed, and the final Complex-Wide Review Report was issued in May 1996. Progress on Systems Engineering task initiatives has been steady, with issuance of the Program Requirements Document in April 1996. Progress on several tasks in the Regulatory Structure and Process and the Radiological Assessment task areas were completed or initiated in this quarter in accordance with the schedules outlined in the revised Implementation Plan and Project Management Plan. These include issuance of policy and guidance on the applicability of Order 5820.2A to LLW disposal sites developed under the Comprehensive Environmental Response, Compensation, and Liability Act, and the Headquarters acceptance of the Hanford 200-W Burial Grounds radiological performance assessment.

Low-Level Waste Projections task initiatives, which had been delayed, are being developed in accordance with the schedule detailed in the revised Implementation Plan, beginning with preparation of a volumetric disposal capacity report which will be submitted to the DNFSB next quarter. Research and Development task initiatives are continuing on hold until the start of fiscal year 1997, consistent with the logic and schedules reflected in the revised Implementation Plan.

2.3 Meetings with the DNFSB and Staff

In this reporting period, two meetings were held with the DNFSB:

DOE staff briefed the DNFSB on April 16, 1996, on the results of the Complex-Wide Review.

DOE staff briefed the DNFSB on April 26, 1996, on the revision to the Implementation Plan.

In this reporting period, DOE staff had the following interactions with staff from the DNFSB to discuss implementation activities:

DNFSB staff and the DOE staff met on May 3, 1996, to discuss the Policy for Demonstrating Compliance with DOE Order 5820.2A for Onsite Management and Disposal of Environmental Restoration Low-Level Wastes under the

Comprehensive Environmental Response, Compensation, and Liability Act.

DOE staff and DNFSB staff held a number of status conference calls during the reporting period.

3.0 SUMMARY OF COMMITMENTS DUE-IN THE CURRENT REPORTING PERIOD

The following table summarizes the status of commitments that were due to be completed during the current reporting period. Appendix A provides a listing of all task initiatives committed to in the 94-2 Implementation Plan and their status, as reported in the Department '§ Safety Issues Management System (SIMS). Two indicators are provided in the first column of the table. The

first correlates with the commitment as numbered in the IP. The second number corresponds to the numbering system used in SIMS.

Status of Task Initiatives Due April 1 - June 30, 1996

IP Task # SIMS ID #	Title or Description	Due Date	Status
III.C. 1 R94- 02 001	Updated Project Management Plan (Revision 1).	06/30/96	Completed. Revised Project Management Plan transmitted to DNFSB on June 27, 1996.
IV.B.2 R94-02 004	Low-Level Waste Program Requirements Document	04/30/96	Completed. LLW Program Requirements Document submitted to DNFSB on April 26, 1996.
V.B.3 R94-02 012	Complete independent assessments and prepare Preliminary Complex-Wide Review Report	04/12/96	Completed. Preliminary CWR Report submitted to DNFSB on April 12, 1996.
V.B.3 R94-02 013	Prepare Final Complex Wide Review Report	05/17/96	Completed. Final CWR Report submitted to DNFSB on May 17, 1996.
VI.B.3.b.1 R94-02 017	Clarify Applicability of DOE Order 5820.2A to sites subject to CERCLA	05/31/96	Completed. Policy and Guidance submitted to the DNFSB on May 31, 1996.
VI.B.4.b.2 R94-02 020	Comparison Report on International Standards and Requirements	06/30/96	Completed. Comparison Report transmitted to DNFSB on June 11, 1996.
VII.B.2 R94- 02 025	Composite Analysis Guidance	05/31/96	Completed. Composite analysis guidance submitted to the DNFSB on April 30, 1996.
VII.B.5.b.1 R94-02.	Complete Headquarters action on Hanford 200W PA	06/30/96	Completed. Hanford 200-W PA compliance assessment submitted

4.0 TASK AREA STATUS

4.1 Systems Engineering

During this reporting period, the Low-Level Waste Program Requirements Document was completed and submitted to the DNFSB on April 30, 1996.

Following completion of the program requirements document, DOE held a workshop the week of May 20, 1996, with Field Office representatives to begin preparing the systems description document. The system description document will include the allocation of the requirements to system functions, an effort that has continued during the current reporting period. It will focus on the major functions and interfaces of the system: generation, treatment, storage, and disposal. The system description document will establish the technical scope, or baseline, for the LLW Program Management Plan. The systems description document and the privatization guidance are on schedule to be completed in September 1996. A weekly teleconference is held with participants in the LLW systems engineering task initiatives to continue development of this document.

Following completion of the Complex-Wide Review Report (see 4.2), preparation of site-specific and complex-wide corrective action plans was initiated. A memorandum providing direction on the preparation of the corrective action plans was prepared and distributed to the Field Offices. The preparation of the Corrective Action Plans are on schedule to be completed in July 1996.

4.2 Complex-Wide Review (CWR)

During the current reporting period, the Preliminary and Final Complex-Wide Review Reports were completed. The preliminary report was transmitted to the DNFSB on April 12, 1996, and the final report was transmitted to the DNFSB on May 17, 1996. This completed all Complex-Wide Review task initiatives. DOE wide and site-specific corrective actions in response to the Complex-Wide Review are being prepared and will be addressed under a Systems Engineering task initiative and are discussed in 4.1 above.

4.3 Regulatory Structure and Process

During the quarter covered by this report, the policy and guidance on the applicability of LLW disposal sites developed under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) was issued (May 31, 1996). Also, the report "Comparison of Low-Level Waste Disposal Programs of DOE and Selected International Countries" was finalized and issued on June 11, 1996. The report provides discussions and tables comparing selected DOE LLW management requirements, practices, and standards with those of Sweden, the United Kingdom, France, and Canada.

Also during the reporting period, working group was established to begin developing the requirements and implementation guidance that will eventually become the input to the LLW

Chapter of the revised DOE Order on Radioactive Waste Management. During the systems engineering workshop held the week of May 20, 1996, with Field Office representatives, members of this group began preparing some of the essential requirements documentation.

During the next quarter, the revised interim policy to clarify and strengthen the LLW management regulatory structure will be issued. This interim policy was originally issued in July 1995, but requires a revision due to the revised approach on conducting radiological assessments that is described in the revised Implementation Plan. Work will continue on developing requirements and guidance for the LLW chapter of the revised radioactive waste management Order.

4.4 Radiological Assessments

The revised Implementation Plan describes the Department's new approach of preparing three related documents as part of each disposal site's radiological assessment: (1) the performance assessment or CERCLA/RCRA documentation, as appropriate, (2) the composite analysis, and (3) the disposal authorization statement. The performance assessment (or CERCLA/RCRA documentation) is a tool to be used in designing a disposal facility and justifying the operational constraints (e.g., waste acceptance criteria). The composite analysis is a separate assessment of the impacts of other sources of radioactive material (past disposal sites, spills, etc.) that contribute to the projected radiological dose to an offsite member of the public from an active or planned LLW disposal facility. The composite analysis would be prepared to demonstrate that the potential dose to a person at the point of public access, the land-use boundary, would not exceed specified limits. The disposal authorization statement is the authorization for the facility to operate under the conditions that are described in the performance assessment (or CERCLA/RCRA documentation) and composite analysis, and cannot be issued until the performance assessment and composite analysis have been completed and approved.

During the period covered by this report, the guidance for conducting the composite analysis was issued. Nevada Test Site personnel developed information necessary for the Peer Review Panel to complete its technical review of the Area 5 performance assessment. Headquarters resolved technical and policy issues on the Idaho National Engineering Laboratory's Radioactive Waste Management Complex (RWMC) performance assessment, enabling Idaho personnel to finalize the performance assessment. A compliance evaluation was completed on the Hanford 200-W Burial Grounds performance assessment by Headquarters, and was issued on June 27, 1996.

There are four performance assessment task initiatives in the revised Implementation Plan that are projected for completion during the next quarter:

- Issue Headquarter's acceptance of the Savannah River Saltstone Disposal Facility performance assessment (July 1996),
- Issue Headquarter's acceptance of the Idaho National Engineering Laboratory Radioactive Waste Management Complex performance assessment (August 1996),
- Issue Headquarter's acceptance of the Nevada Test Site Area 5 performance assessment (August 1996),
- Submittal of the Hanford 200-E Burial Grounds performance assessment (August

1996).

Also, an Interim Standard Review Plan for review of DOE LLW disposal facility performance assessments is being prepared based on the use of compliance evaluations of performance assessments being submitted to Headquarters for review and acceptance.

4.5 Low-Level Waste Projections

During the reporting period, the draft Disposal Capacity Report was reviewed by DOE Headquarters and Field staff. Comments are currently being resolved in the report for issuance in July 1996. As described in the revised Implementation Plan, subsequent reports will be prepared that will also address radiological constraints on capacity. Data on radiological capacity will be obtained from performance assessments and composite analyses conducted by the sites, and as a result of the development of the projections program which is due December 1996. Development of the LLW minimization strategy continues, and the report is on schedule to be completed in August 1996.

4.6 Research and Development

Task initiatives for LLW research and development remain on hold in accordance with the logic and schedules in the revised Implementation Plan. A meeting of the Research & Development Task Team (RDTT) will be held in the next quarter in order to properly initiate the fiscal year 1997 research and development task initiatives. Activities being conducted by the Office of Science and Technology, particularly the Mixed Waste Focus Area and the Subsurface Contaminants Focus Area, will be addressed by the RDTT for appropriate consideration in the identification of outstanding LLW R&D needs.