

Quarterly Report for the Implementation Plan

**Defense Nuclear Facilities Safety Board
Recommendation 98-2**

*Accelerating Safety Management Improvements
at the Pantex Plant*

July 1 through September 30, 2002

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U.S. Department of Energy*

1.0 Introduction

On September 25, 2000, the Secretary of Energy approved Revision 1 to the 98-2 Implementation Plan (IP) and provided a copy to the DNFSB. Change 1 to Revision 1 is pending in the Office of the Secretary for transmittal to the Board. The following report for the period July 1 through September 30, 2002, tracks progress towards completing the commitments outlined in the Revision 1 IP and toward the additional commitment proposed in Change 1 to Revision 1.

2.0 General Progress

From July 1 through September 30, 2002, no commitments were completed. Progress made on outstanding and proposed commitments is noted in the following sections.

3.0 Task Area Status

The status of open and proposed commitments is provided below for each task area of the Revision 1 IP.

4.1 Define Scope of Work

There are no outstanding commitments within this task area.

4.2 Analyze Hazards

There are no outstanding commitments within this task area.

4.3 Develop and Implement Controls

Commitment 4.3.2 – The purpose of this commitment is to validate implementation of the improved site-wide TSR controls for fire protection.

Deliverable: DOE Readiness Assessment (RA) Report for Fire Protection.

BWXT Pantex has declared readiness for Phase 3 of the implementation plan for site-wide TSR controls for fire protection, but not for Phase 2. A combined NNSA RA for Phases 2 and 3 is planned for early December, pending completion of the contractor's RA.

Commitment 4.3.3 —The purpose of this commitment is to address the hazards associated with on site transportation of nuclear explosives by developing and establishing the technical and analytical basis for site-wide TSR transportation controls.

Deliverable: DOE-approved BIO Module for On-Site Transportation and associated TSR and DOE-approved Implementation Plan for transportation controls.

This action has changed significantly since creation of the Revision 1 IP. Where the Revision 1 IP called for a single authorization basis document approved once in its entirety, the magnitude of the analysis required made it more feasible to divide it into three phases, with separate Safety Analysis Report (SAR) modules for each of three Phases – Phase I (weapons in their ultimate user configuration), Phase II (partial assemblies) and Phase III (nuclear material).

During the previous quarter the NNSA approved the Phase I SAR and its implementation plan. The monthly 30/60/90 day report and the BWXT Pantex Performance Evaluation Plan calls for Phases II and III to be submitted for approval on or before February 13, 2003 and approved on or before April 10, 2003. These phases require extensive weapon response analysis and are the most challenging of all those developed in authorization basis upgrade.

The Revision 1 IP calls for completion of the Transportation Basis for Interim Operations (BIO), the earlier concept, by February 28, 2001. Change 1 to the Revision 1 IP (currently pending in the Office of the Secretary) commits to approval of the complete Transportation SAR and its associated implementation plans by June 30, 2003.

Commitment 4.3.4 - The purpose of this commitment is to validate implementation of the improved site-wide TSR controls for on-site transportation of nuclear explosives.

Deliverable – DOE Readiness Assessment Report.

The NNSA anticipates conducting a Readiness Assessment for the Group 1 controls of the Phase 1 SAR in November, 2002, pending satisfactory completion of the BWXT Pantex Readiness Assessment.

Implementation status for the Enhanced Transportation Cart (ETC), a major part of the Transportation SAR, is:

- W76,W78,W88 - ETC I and ETC II are complete.
- B61 - ETC 1 is complete.
- W80,W87 - Implementation in progress.
- B83 - Implementation is scheduled for March, 2003.
- W84 – Implementation to be prior to next scheduled surveillance cycle.

Commitment 4.3.9 – The purpose of this commitment is to modify the fire detection and suppression system in Building 12-44

Deliverable – Completion of physical modifications to Building 12-44.

The original proposal included installation of UV detectors. The proposal was revised and approved in November 2001 to install infrared detectors in lieu of the UV detectors. The flow testing issues briefed to the Board on October 16 will not prevent on time completion of this item.

The Revision 1 IP calls for completion of the project by December 30, 2002. The project remains on track to completion per the Revision 1IP.

4.4 Perform Work

Commitment 4.4.3 and 4.4.4 — The purpose of this commitment is to issue revisions to supplemental directives to align with the changes to DOE Orders 452.1, 452.2, and DOE-STD-3015.

Deliverable: Revisions to the AL Supplemental Directives 452.1 and 452.2 issued and an Impact Analysis and DOE-approved Implementation Plan (as required).

All actions under commitment 4.4.3 are complete.

Deliverable: Revisions to the NV Supplemental Directives 452.1 and 452.2 issued and an Impact Analysis and DOE-approved Implementation Plan (as required).

The National Nuclear Security Administration Nevada Operations Office (NNSA/NV) manager signed NV O 452.1B on April 15, 2002, and NV O 452.2B on April 18, 2002 and copies have been provided to the Board. NNSA/NV has performed an appraisal of DOE Order 452.1B and 452.2B and associated field directives at the Nevada Test Site. A response to this appraisal will be the development of an Implementation Plan, and associated resource requirements, that will be incorporated into a revised Program Plan for the Device Assembly Facility.

On August 14, 2002, NNSA/NV directed LLNL and LANL to provide the implementation plan by September 30. On September 24 LLNL and LANL requested that the date be extended by six months. In early October, 2002, NNSA/NV extended the date to March 31, 2003 and requested bimonthly status reports on implementation plan development.

The Revision 1 IP calls for completion of these actions by February 28, 2001. Change 1 to the Revision 1 IP did not request an extension of that date.

Commitment 4.4.5 – The purpose of this commitment is to authorize startup of the W78 SS-21 process.

Deliverable: W78 SS-21 Startup Authorization.

Work is in progress. The December 2003 completion date of the Integrated Weapon Activity Plan (IWAP) Issue H, was changed to August 2003 in Revision 1 to Issue H of the IWAP. Change 1 to Revision 1 to the Implementation Plan commits formally to the Board to meet the August date. Work is progressing adequately to complete by August 28, 2003.

Commitment 4.4.6 – The purpose of this commitment is to authorize startup of B83 SS-21 process.

Deliverable: B83 SS-21 Startup Authorization.

This work commenced in June 2002 and was scheduled by Issue H of the IWAP to complete in June 2004. Revision 1 to Issue H of the IWAP changed the completion date to May, 2004. Change 1 to Revision 1 to the IP commits NNSA to the May date. Work is progressing adequately to complete by May 30, 2004.

Commitment 4.4.7 – Accelerated Tooling. Change 1 to Revision 1 to the IP will commit the NNSA to accelerate implementation of critical tooling for two Conventional High Explosive weapons to the greatest extent possible within the scope of the current SS-21 authorization basis projects.

Deliverable: Delivery of bay and cell critical tooling for the W78 program and bay tooling for the W88 program to the Pantex contractor.

Change 1 to Revision 1 to the IP commits to having designated critical tooling on site for the W78 by January 31, 2003 and for the W88 by October 1, 2002. The W78 is on track to meet the January date. The W88 program missed the October date due to unanticipated greater demands by the ETC project for the tooling engineer. The W88 program has developed a recovery schedule and anticipates meeting the May 21, 2003 implementation date.

Deliverable: Implementation of bay and cell tooling for the W78 program and bay tooling for the W88 program to the Pantex contractor.

Change 1 to Revision 1 to the IP commits to having designated critical tooling implemented for the W78 by August 28, 2003 and for the W88 by May 21, 2003. The W78 is on track to meet the August date. The W88 program anticipates overcoming the late tooling delivery and meeting the May, 21, 2003 implementation date.