Quarterly Report for the Implementation Plan

Defense Nuclear Facilities Safety Board Recommendation 98-2

Accelerating Safety Management Improvements at the Pantex Plant

October 1 through December 31, 2002

Assistant Deputy Administrator
for Military Operations and Stockpile Operations
National Nuclear Security Administration
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 was provided on October 28, 2003, and was accepted by the Board on December 19, 2003. The following report for the period October 1 through December 31, 2002, tracks progress towards completing the commitments outlined in the Revision 1IP and in Change 1 to Revision 1.

2.0 General Progress

From October 1 through December 31, 2002, Commitment 4.3.9, Modification of the fire detection and suppression system in Building 12-44, was completed. Progress made on outstanding and proposed commitments is noted in the following sections.

The NNSA Readiness Assessment (RA) report for Transportation, Phase I, Group I controls is attached in partial fulfillment of Commitment 4.3.4. The time frame for completion of Commitment 4.3.4 will not be known until the implementation plan to be delivered under the related Commitment 4.3.3 has been reviewed and approved by the Pantex Site Office (PXSO). Approval of the Commitment 4.3.3 implementation plan is scheduled June, 2003 per Change 1 to the Revision 1 IP.

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.

The RA was conducted as scheduled in December 2002. The PXSO is reviewing the draft report and working with the contractor to clarify the issues raised by the report. We anticipate providing the final report prior to February 28, 2003.

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 1IP called for an 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 modules for each of three Phases – Phase I (weapons in their ultimate user configuration), Phase II (partial assemblies) and Phase III (nuclear material) – to be combined into a single Safety Analysis Report after approval of the final module.

During the third quarter of FY 2002, the NNSA approved the Phase I SAR module and its implementation plan. We anticipate submission of Phases II and III in February and intend to review them for approval as quickly as possible.

This commitment calls for approval of the full set of Transportation SARs and their 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 conducted a Readiness Assessment for the Group 1 controls of the Phase 1 SAR in November, 2002. The report of this RA is forwarded with this quarterly report in partial fulfillment of the commitment. The time line for conducting the final RAs necessary to complete this commitment will not be known until after approval of the implementation plan to be submitted under Commitment 4.3.3 by June 30, 2003.

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 II is complete.
- W80 – Start deferred to March 2003.
- W87 - Implementation in progress. Some non-safety issues may delay the W87. If this happens the ripple effect will delay the B83.
- B83 - Implementation is scheduled for March 2003. Possible late start due to non-safety issues with W87.

- 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.

NNSA took beneficial occupancy of the modified cells in Building 12-44 on December 9, 2002. This commitment has been met and will no longer be reported.

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 completion of these actions was due by February 28, 2001 and is expected on March 31, 2003.

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 progressing adequately to complete by the scheduled completion of 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.

Work is progressing adequately to complete by the scheduled completion of May 30, 2004.

Commitment 4.4.7 – Accelerated Tooling. 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.

The W78 tooling has been tried out once and modifications per the walk through of the procedures are in progress.

The W88 tooling is expected on site by January 31, 2003. The lead designer is at the vendor's facility to conduct try-outs prior to shipment. The contractor is ready to walk down the procedures with the new tooling when received.

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 missed its October milestone of having tools on site due to unanticipated greater demands by the ETC project for the tooling engineer. The W88 program is meeting its recovery schedule and anticipates meeting the May, 21, 2003 implementation date.

Deliverable No.	Deliverable	Deliverable Due Date	Deliverable Actual Date	Associated DOE Correspondence to the Board	Remarks	Status Open Pending Delivered	POC for Responsibility	Status Date
4.3.03	DOE-Approved BIO Module/TSR for On-Site Transportation and DOE-Approved Implementation Plan for On-Site Transportation controls submitted	2/28/2001		2/28/01--Glass Letter to Conway 4/30/02 Beck letter to Conway	•7/31/00--Carried forward 5.6.3#3 •11/14/00--WSS information has been received from LLNL. SNL & LANL information is due within 30 days. First draft should be ready by March 2001. Final is expected May 2001. •1/8/01--Based on a recent scheduling meeting, the 1st draft submission is due May 2001 versus March 2001. •2/22/01--In order to expedite this commitment, modules of the TSR are being completed and submitted to the AAO office for review and acceptance. Currently, the AAO has the hazard analysis which they are reviewing. •2/28/01--The letter to Conway provided a status of this commitment. •3/28/01--The status remains unchanged. the full-up module is expected to be complete sometime between May and September 2001 •6/29/01--Status to the Board was provided indicating that the full-up module to be provided in September •8/21/01--Status prepared for Board indicates that the full-up module cannot be provided until November 2001 due to laboratories not being able to provide weapon response information until September. •10/12/01--Previously, the lab had agreed to provide WR information by September. Both SNL and LANL are behind schedule to complete their WR submissions. BWXT-PX has made changes to the SAR Module based on the preliminary (draft) input received verbally uring the September meeting. Until all information is formally submitted and incorporated, the date to provide the full-up module slips. In order to allow for the 40 working day AAO review and comment resolution period once the SAR is received from BWXT-PX based on the laboratory WR formal input, it appears that the SAR approval date has slipped to January 2002. •11/29/01--The laboratory input was received 11/2001. The SAR approval date will slip to February 2002 as a result. •1/11/02--The TSR and plan is scheduled to be delivered to AAO on 1/21/02. AAO will conducted their final review. The approval date remains scheduled as February 2002. 02/20/02 Approval anticipated by March 31, 2002. •4/18/02 -- SAR Module Phase I approved on April 1, 2002. •7/29/02 -- Phase I Implementation Plan approved •10/16/02 -- Weapon response from labs received late and with only partial QA. Submission of Phase II and III SARs delayed until February, 2003, approval likely to occur no earlier than April, 2003, and possibly later. •1/22/03 -- Submission of Phase II and III anticipated on Feb 13, 2003.Final IER anticipated 1/24/03.	Partial	John Kirby, PXSO	10/16/2002
4.4.04	Revisions to corresponding NVO Orders to align with published changes to DOE Orders 452.1A and 452.2A and DOE-STD 3015; Request Impact Analysis and Provide DOE-Approved Implementation Plan.	2/28/2001		2/28/01--Glass Letter to Conway 4/30/02 Beck letter to Conway	•7/31/00--Carried forward 5.4.2 & 5.5.1 •11/14/00--Time to complete may slip as a result of the slip on 4.4.2. •1/8/01--WPD will provide their draft to NVO as an assist for their SD development. •2/22/01--NVO is in process of completing final comment resolution and finalizing their site directive. They anticipate they will be ready to publish in March 2, 2001, despite the lack of final publication of the 452 orders as required by 4.4.2. The site directive cannot be published until the orders have been published. •2/28/01--A status of this commitment was provided to the Board. •3/28/01--The status of this commitment remains unchanged. NV intends to publish its' SD 90 days after the 452 orders are published. •6/29/01--NV remains committed to publish it's SD and obtain the implementation plan (as needed) within 90 days after the orders are published. •10/12/01--Draft orders are out for initial review until 10/26/01. •11/29/01--NV expects the commitment to be completed early 2002. •01/22/02--NV Orders have completed the DMC process and are scheduled to be finalized 2/15/02. On 3/1/02, the orders will be presented to the NV Change Review Group to get them into the contracts. Once the CRG approves the orders, the NV contractors' contracts will be modified. •4/17/02 -- NV O 452.1B issued, NV O 452.2B at Manager's for signature, impact analysis and implementation plan TBD •4/30/02 -- NV O 452.2B issued. •6/30/02 -- Implementation Plan expected September 30, 2002. •10/16/02 -- NV granted LLNL and LANL six month extension. •1/16/03 -- NV expects delivery per LLNL/LANL commitment on 3/31/03.	Partial	Tim McEvoy, NVO	10/16/2002

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4.3.02	DOE Readiness Assessment Report for Fire Protection	7/30/2002			•7/31/00--New action •11/19/00--The date for completion is predicated upon completion and implementation of the Fire BIO and TSRs •2/28/01--The Fire BIO and TSR have been approved. The implementation plan is due in 30 days. The implementation will take a year to complete. Anticipate completing the RA by 6/2002. •10/12/01--Three phases with several individual RAs are planned to complete all facilities and programs associated with completion of this commitment. The first RA is scheduled to start November 2002. Based on the current schedule, July 2002 appears to be the appropriate date to finish this TBD commitment. As a result, the TBD will be replaced with July 2002. •1/31/02--The RA for the approved Fire BIO/TSR is scheduled to begin February 2002. The report remains scheduled to be delivered by July 2002. •4/18/02 -- Implementation for W56, W80, B83, and W78 is complete. CRA for W87 is scheduled, Readiness Verification for W79 is in progress. Staging and ramps to complete in July, Final DOE RA in August, 2002. •6/30/02 Only prestarts remain for W79 and B61. Special Use Facilities CRAs in progress. W76 is beng dc •10/16/02 RA anticipated in early December due to resource conflicts with Transportation Phase I RA. •1/16/03 -- RA conducted in December, 2003. Significant issues identified with the W87 and W79 programs. Expect final report by February 28, 2003.	Open	Don Brunell, ASO	10/16/2002
4.3.04	DOE Readiness Assessment Report for Transportation	TBD			•7/31/00--Carried forward 5.6.3#3 •11/19/00--The date for completion is predicated upon completion and implementation of the Transportation BIO and TSRs •2/28/01--The implementation must be complete to initiative the RA. It is anticipated that the RA will begin September 2002. •4/18/02 -- To be scheduled for Phase I after implementation plan for Phase I is approved. •7/26/02 -- The extent of NNSA readiness verification activities will be determined after review of contractor's readiness verification activities. •10/16/02 -- Phase 1 RA anticipated in November, 2002. Phase II and III RA remain TBD. •1/16/03 -- Phase 1, Group 1 RA conducted, report forwarded with quarterly report. Time line for other RAs TBD.	Open	Don Brunell, ASO	10/16/2002
4.4.5	W78 SS-21 Start-up Authorization	12/30/2002 12/30/2003			•7/31/00--Carried forward & replaces 5.6.4 •11/20/00--Assessment of resources (other than production technicians) availability to start SS-21 work in FY01 has not been completed by either the labs or Pantex. Expect an answer by 12/8/00. •2/22/01--The W78 Project Team has requested that the SS-21 project start in FY2002. •3/22/01--During the meeting at Pantex, BWXT was tasked by DP-20 to propose a new "Rebaseline Target" IWAP. The due date is June 15, 2001. This new IWAP should determine where the W78 SS-21 project will initiate and end. •6/15/01--BWXT presented their proposed IWAP. Lab input is still needed to confirm support to schedules Input is due by 7/12/01. SMT scheduled to review and approve on 7/17/01. •7/20/01--SMT approved IWAP. •8/7/01--SMT Chair approved IWAP for release. Approved IWAP indicates a W78 full SS-21 completion date of December 2003. •1/31/02--W78 SS-21 provided their project scope to the SMT on 1/10/02. Milestone 1 was presented to the 2/1/02 SMT. •10/16/02 -- On schedule to August, 2003 completion per Change 1 to Revision 1IP. •1/16/03 -- Continues on schedule. All tools on site, walkthrough conducted. Tools being modified per walk through.	Open	Rob McKay, OWPM	10/16/2002
4.4.6	B83 SS-21 Start-up Authorization	5/30/2002 5/30/2004			•10/16/02 -- On schedule to August, 2003 completion per Change 1 to Revision 1IP.	Open	Michelle Bruns, NA-122	10/16/2002
4.4.7	Accellerated tooling for W78	8/28/2003		Ch-1 to Rev 1 IP	•1/16/03 -- Tooling on site, walkthroughs conducted, on schedule to commitment	Open	Rob McKay, NA-122	8/28/2003
4.4.7	Accellerated tooling for W88	5/21/2003		Ch-1 to Rev 1 IP	•1/16/03 -- Tooling expected on site by 1/31/03. On schedule to commitment	Open	RobMcKay, NA-122	8/28/2003
4.5.1	IP 98-2 Final Assessment Report	6/30/2003 6/30/2004			•7/31/00--Carried forward 5.6.5	Open	Dave Beck, NA-12	10/16/2002
4.1.1	BIO/SAR Program Plan	8/30/2000	8/30/2000	8/30/00--Glass letter to Conway.	•7/31/00--Corresponds to 5.1.4 (Portion of IWAP) •8/15/00--AAO was sent an Email request for status. •8/24/00--AAO approved the program plan with comments. •8/31/00--AL Manager signed the letter to the DNFSB. Deliverable was mailed. •11/17/00--Individual schedules for each project plan are slipping	Delivered	Don Brunell, PXSO	8/30/2000

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4.1.2	Assessment of TBP-901 Implementation	11/30/2001	11/30/2001	11/30/01--Glass letter to Conway	•7/31/00--Follow-on to 5.2.2 •7/23/01--Called AAO for schedule to completion. •10/12/01--Information is being gathered for a consolidated response. •11/27/01--Both the AAO and OWP assessments were provided to the Board.	Delivered	Dave Ryan, PXSO Steve Goodrum, OWPM	11/30/2001
4.2.1	D&P Manual Chapter 11.8—"Integration of Weapon Response into Authorization Bases at the Pantex Plant"	10/30/2000	10/31/2000	10/31/00--Glass Letter to Conway	•7/31/00--New action •8/24/00--WRTeam completed draft for SMT review. SMT was requested to provide their organizational comments. •9/29/00--All organization comments were received and proposed resolution provided. SNL required further resolution. •10/10/00--Final draft completed. All comments resolved. Team consensus to request publication provided. •10/13/00--Publication package provided for SMT approval. •10/24/00--Chapter released for publication.	Delivered	Don Brunell, OASO	10/24/2000
4.2.2	TBP Guidance on expectations & documentation of weapon response (Follow-on to 11.8)	1/30/2001	1/30/2001	1/31/01--Glass Letter to Conway	•7/31/00--New action •11/19/00--The SMT designated a team to begin developing the guidance. The guidance will be an attachment to Chapter 11.8 in lieu of a TBP. •12/12/00--Sent an email to the team to establish a meeting date the first week of January to evaluate a draft. •1/2/01--Team meeting scheduled for 1/4/01 to discuss draft. •1/8/01--The teams draft was finalized and distributed for team comments. Comments are due by 1/11/01. A comment resolution meeting is scheduled the afternoon of 1/17/01. •1/30/01--Appendix A to 11.8 (replacing TBP) was published.	Delivered	Steve Erhart, OASO Karl Waltzer, OASO Larry Eppler, Pantex	1/30/2001
4.2.3	11.8 and TBP Impact Analysis & DOE-Approved Implementation Plan	3/30/2001	3/30/2001	3/30/01--Beck letter to Conway	•7/31/00--New action •60 days after the completion of 4.2.2, the contract is required to submit their impact assessment. •2/22/01--AAO is in process of requesting the Pantex M&O assessment and implementation of 11.8 and associated guidance. AL is in process of re-establishing the Weapon Response Team to evaluate the impacts of 10CFR830 on 11.8 and its associated guidance. Any changes as a result of the two evaluations will be incorporated as a change to the 11.8 chapter and its guidance. •3/28/01--PX provided their Impact Evaluation. The evaluation determined that 11.8, Change 39 (Chapter & Guide) are currently implemented through MNL 254543, Pantex Plant Safety Management (ISM) Authorization Basis (AB) Manual. A change to the MIC S/RID has been submitted to contractually implement the chapter. The change will occur during the next revision.	Delivered	Don Brunell, OASO	3/28/2001
4.2.4	Assessment of USQ Process	1/30/2001	1/30/2001	1/31/01--Glass Letter to Conway	•7/31/00--Carried forward 5.3.1#3 •11/19/00--Assessment is in process •1/8/01--Assessment is expected to be completed on time. •1/31/01--AAO submitted to AL for issuing to Board.	Delivered	Don Brunell, OASO	1/31/2001
4.2.5	Revision #2 to the ISM AB Manual	10/30/2000	1/30/2001	10/31/00-Glass Letter to Conway 01/31/01--Glass Letter to Conway	•7/31/00--Corresponds to 5.3.1 & 5.8.3 •9/11/00--Request for status was emailed. •10/16/00--Draft delivered to AAO for review •10/30/00--Pantex M&O did not complete their internal review and incorporate comments received. Expect to be complete within 60 days. •11/1/00--Glenn Memo to Pelligrini regarding missed commitment. Requesting personal attention to ensuring all funded commitments are delivered in time to allow for adequate review, comment, and approval. •11/9/00--AAO comments were provided to the Pantex M&O and requested that the manual be written to reflect the intent of the IP. The new draft is anticipated to be delivered by December 2000. •12/13/00--Final draft is expected to be delivered by 12/15/00. •1/8/01--AAO has received the revision and is reviewing the document. Review anticipated to be complete by 1/12/01. •1/22/01--Final document complete. All comments resolved. Final being transmitted to AL for distribution to the Board. •1/31/01--Mailed to DNFSB	Delivered	Don Brunell, OASO	1/31/2001
4.2.6	Revise D&P 11.7—"Nuclear Explosive Operations Change Control Process"	11/30/2000	11/30/2000	11/30/00--Glass Letter to Conway	•7/31/00--Follow-on to 5.3.2 •10/18/00--Email request for status. •10/30/00--Team meeting scheduled for 11/1/00 to resolve comments on initial draft and prepare 2nd draft for organizational and SMT comment. Final chapter should be published by the end of the month. •11/6/00--2nd Draft has been released for SMT and AL organization comments. Comments are due by 11/20/00. •11/29/00--Final released for publication	Delivered	Mark Baca, OWS	11/29/2000

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4.3.01	DOE-Approved BIO Module/TSR for Fire Protection and DOE-Approved Implementation Plan for Fire Protection Controls	10/30/2000	6/30/2001	10/31/00--Glass Letter to Conway 01/30/01--Glass Letter to Conway 02/28/01--Glass Letter to Conway 06-29-01--Glass Letter to Conway	•7/31/00--New action •6/30/00--Draft Fire BIO/TSR delivered to AAO for review. AAO returned with comments. Several resolution meetings have occurred to resolve the comments. Pantex M&O is expected to re-submit by 9/20/00. •8/4/00--Implementation plan submitted by Pantex M&O to AAO for review. •8/31/00--AAO returned implementation plan to Pantex M&O with comments. •10/30/00--AAO stated that the Fire BIO is not ready for submission due to technical issues associated with the sensitivity and zone coverage of the UV detectors. The complete deliverable is expected within 30 days. •11/9/00--More time will be required to address the UV technical issue prior to releasing the approved Fire BIO. •12/13/00--Expect Fire BIO to be ready for delivery to AAO Manager by December 22, 2000 •1/8/01--SER is in final review. •1/17/01--AAO is re-writing SER based on the numerous comments received during their review. •1/31/01--Letter to Board to provide update. •2/22/01--The final SER is in the AAO Manager's office for signature. It is expected to be signed & provided to AL/WPD for distribution to the Board by 2/28/01. •2/28/01--The BIO Module and TSR were delivered. The implementation plan to follow in May. •6/8/01--Fire BIO implementation Plan approved with conditions. •6/21/01--Letter received from DNFSB siting concerns with FireBIO. •6/29/01--Department delivers Fire BIO implementation plan. Department commits to address concerns during a technical briefing to be scheduled.	Delivered	Don Brunell, OASO	6/29/2001
4.3.05	Additional DOE-Approved TSR controls derived from the NES master Studies	11/30/2000	2/28/2001	11/30/00--Glass Letter to Conway 01/31/01--Glass Letter to Conway 02/28/01--Glass Letter to Conway	•7/31/00--New action •10/18/00--Email request for status •11/9/00--AAO meeting the Pantex M&O responsible organization to discuss the M&O's failure to respond to AAO's rejection of the last submission. A letter to the M&O will follow. •12/13/00--Looks like the next draft will be into AAO by early January. •1/8/01--The next draft is behind schedule. Do not anticipate receipt until February 2001. •1/30/01--Provided status within the January letter to the Board. •2/22/01--AAO is completing their internal process actions and expect to deliver the final product to AL/WPD by 2/28/01. •2/26/01--The final commitment was provided to the Board.	Delivered	Don Brunell, OASO	2/28/2001
4.3.06	Flammable Solvent and Material Substitution Plan	10/30/2000	10/31/2000	10/31/00--Glass Letter to Conway	•7/31/00--New action •10/27/00--Plan signed by the Manager	Delivered	Steve Goodrum, OWPM Dan Glenn, OASO	10/27/2000
4.3.07	Plan for Transportation Carts	10/30/2000	8/30/2001	10/31/00-Glass Letter to Conway 01/31/01--Glass Letter to Conway 04/20/01--Gioconda Letter to Conway 08/30/01--Beck Letter to Conway	•7/31/00--New action •10/30/00--AAO delivered a partial package. The complexity of the project and evolutionary nature of the design process requires substantial national lab analysis prior to completion of the design. The entire package is expected by January 2001. •12/11/00--Team met to discuss package. Remain on track to deliver full package by January 2001. •1/8/01--On track to receive Part 2 by 1/16/01. •1/19/01--Final package approved and received by AAO to be transmitted to Board with 1/30/01 letter. •3/5/01--Department received letter from DNFSB citing concerns w/implementation. An updated plan is due in May 2001. •4/20/01--Letter from Gioconda to Conway (revised plan to be provided May 2001). •6/29/01--Letter from Glass to Conway, revised plan is in process and expected to be complete July 2001. •8/9/01--AAO delivered the package to DP-21 for transmission to the DNFSB	Delivered	Don Brunell, OASO	8/9/2001
4.3.08	PDS for 12-44 Fire Protection Upgrade	12/30/2000	12/21/2000	12/21/00--Glass Letter to Conway	•7/31/00--New action •11/14/00--Document in draft. •12/13/00--PDS has been delivered to AAO and is under review. Expect to complete and deliver to WPD for transmission to the Board no later than 12/19/00. •12/21/00--Commitment mailed to the Board.	Delivered	John Guelker, OASO Pat Higgins, SPD	12/21/2000

Last Updated: 1/24/2003

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4.3.09	Completion of physical Modifications to Bldg. 12-44 Completed	12/30/2002			•12/9/02 - Beneficial occupancy, commitment met.	Delivered	Charlie Phillps, OASO Johnnie Guelker, OASO	10/16/2002
4.3.10	Conceptual Design for Fire Detection and Suppression Systems Upgrades	4/30/2001		6/15/01--Beck Letter to Conway	•7/31/00--New action •11/14/00--Do not have approval to start CD-1 •12/21/00--Based on Jeff Underwood email, AAO is reviewing CD0. Cannot start CD1 until CD0 is approved. •1/17/01--CD0 is headed to HQ for decision. •2/22/01--HQ has the CD0 for approval. They are holding approval until funding issues are resolved. •3/28/01--DP-20 has requested that DP-6 evaluate the project to aid in selecting an implementation strategy (line item, combination of GPP/Capital/Expense, or Expense). Options are due to DP-20 by April 30, 2001 to provide an implementation strategy by May 31, 2001. DP-20 is preparing a letter to the Board informing them of the evaluation and plan to submit a new date or commitment by June 15. •6/15/01--DP-20 to DNFSB providing input that a series of small projects will be completed and recommend that this item be removed from 98-2Rev1. •4/16/02 -- The intent of this action has been met by transmission in February to the Board of the approved and funded project plan for replacment of the fire alarm system. No further status will be recorded.	Intent has been met	Jeff Underwood, NNSA John Guelker, OASO Pat Higgins, SPD Jeff Yarbrough, PX-BWXT	1/31/2002
4.3.11	ESAAB Authorization for Title 1	06/30/01		6/15/01--Beck Letter to Conway	•7/31/00--New action •11/14/00--The decision on what type of funding to use to implement has not been made. Capital versus expense or a combination. •1/8/01--Based on current orders, Cannot go forward with Title 1 until CD1 is approved and capital funding is requested. Capital funding not expected until 2003. •3/28/01--DP-20 has requested that DP-6 evaluate the project to aid in selecting an implementing strategy (line item, combination of GPP/Capital/Expense, or Expense). Options are due to DP-20 by April 30, 2001 to provide an implementation strategy by May 31, 2001. DP-20 is preparing a letter to the Board informing them of the evaluation and plan to submit a new date or commitment by June 15. •6/15/01--DP-20 to DNFSB providing input that a series of small projects will be completed and recommend that this item be removed from 98-2Rev1. •4/16/02 -- The intent of this action has been met by transmission in February to the Board of the approved and funded project plan for replacment of the fire alarm system. No further status will be recorded.	Intent has been met	Jeff Underwood, NNSA John Guelker, OASO Pat Higgins, SPD	1/31/2002
4.4.1	DOE Orders 452.1A, 452.2A and DOE-STD-3015 Proposed Revisions Developed & Submitted for formal review process	8/30/2000	8/30/2000	8/30/00--Beck Letter to Conway	•7/31/00--Carried forward 5.4.2 & 5.5.1 •8/15/00--DP-20 was sent a request for an update •8/21/00--DP-20 responded that the letter transmitting the orders and standards to MA for the review and comment period was ready and would be given to Beck for signature. •8/30/00--Beck signed out letter to DNFSB.	Delivered	Ed Cassidy, NA-12	8/30/2000
4.4.2	DOE Orders 452.1A, 452.2A and DOE-STD-3015 Formal Review Process & Publication	11/30/2000	8/30/2001	11/30/00--Glass Letter to Conway 02/22/01--Beck Letter to Conway 08/23/01--Beck Letter to Conway	•7/31/00--Carried forward 5.4.2 & 5.5.1 •10/18/00--Email request for status •10/19/00--Email response from Helmut Filacchone indicates that the orders and standards are still in formal review and comment period and this will be extended. DP-21 is shooting for a 12/31/00 publication date. •11/20/00--A plan was provided by DP-21 indicating expected release for publication by 12/8/00. •12/6/00--DOE O 452.1B and .2B and Standard DOE -STD-3015-YY are scheduled to be published on Dec. 31, 2000 barring any obstacles encountered by Revcom system (i.e., comment resolution) or the publication process. Working with Mr. Beck to remove any obstacles before they are encountered. •1/2/01--Notice received that 452.1B was signed out by DP-20 to MA for publication. •1/29/01--Both 452.1B and 452.2B have been provided to MA for publication. STD-3015 has 174 comments that are in process of being resolved. •2/22/01--DP-20 provided a response to the Board indicating publication of the Standard by April and publication of the orders by May. •4/30/01--Status to Board provided regarding delay in publication. Expect June 2001. •6/29/01--Status to Board provided regarding delay in publication to August 2001. •7/9/01--Internal e-mail received indicating that administrative issues have been resolved and expect orders to be published by end of July. •8/6/01--Orders published on the web.	Delivered	Ed Cassidy, NA-12	8/6/2001

Deliverable No.	Deliverable	Deliverable Due Date	Deliverable Actual Date	Associated DOE Correspondence to the Board	Remarks	Status Open Pending Delivered	POC for Responsibility	Status Date
4.4.3	Revisions to corresponding AL Supplemental Directives 452.1 and 452.2 to align with published changes to DOE Orders 452.1A and 452.2A and DOE-STD 3015; Request Impact Analysis and Provide DOE-Approved Implementation Plan.	2/28/2001	11/30/2001	2/28/01--Glass Letter to Conway 11/30/01--Glass Letter to Conway 4/30/02 -- Beck Letter to Conway	•7/31/00--Carried forward 5.4.2 & 5.5.1 •11/14/00--Time to complete may slip as a result of the slip on 4.4.2. •1/8/01--WPD in process if using pre-published orders to begin changes to the SDs •1/22/01--Draft changes to the site directives are in process using the final draft orders being prepared for publication. •2/22/01--Final comments are in process of being received and resolved. As a result of comment resolution, it is anticipated that the final draft will be ready for publication despite the lack of final publication of the 452 orders as required by 4.4.2. The site directive cannot be published until the orders have been published. •2/28/01--A status of this commitment was provided to the Board. DOE-STD-3015 was published in February. •3/28/01--The status of this commitment remains unchanged. AL intends to publish its' SD 90 days after the 452 orders are published. •6/29/01--AL remains committed to publish it's SD and obtain the implementation plan (as needed) within 90 days after the orders are published. •7/18/01--AL Team released draft for team review. Comments are due by 8/3/01. •8/21/01--Comments have been received. As a result of the comments received, the supplemental directives are being revised to reflect appropriate resolution. Final draft is expected to be ready for released by the end of September. •Final draft was released 10/15/01. Teleconference scheduled for 10/19/01 to resolve any comments. •11/1/01--Both AL SDs approved for publication and impact analysis requested. •1/31/02--PX Impact Analysis submitted to AAO 12/20/01 and approved by AAO on 1/26/02. PX Implementation Plan due by 2/28/02.	Delivered	Steve Goodrum, OWPM	11/30/2001

Total Open or Pending:	**8**
Total Delivered or Intent met by other means:	**18**
Total No. of Commitments:	**26**

National Nuclear Security Administration

Defense Nuclear Facilities Safety Board Recommendation 98-2

Quarterly Briefing for the Period Ending 12/31/02

TBD, 2003

National Nuclear Security Administration

Recommendation 98-2

Accelerating Safety Management Improvements at the Pantex Plant (Open Items)

Commitment	Responsible	Cost	Schedule	Quality	Overall
4.3.2: DOE Readiness Assessment Report for Fire Prot. (1)	Brunell, PXSO		See Note (1) (R)		↘
4.3.3: DOE-Approved Transp. BIO/TSR & Implementation Plan (2)	Brunell, PXSO				↗
4.3.4: DOE Readiness Assessment Report for Transp. (3)	Brunell, PXSO				→
4.3.9: Completion of 12-44 Modifications (4)	J. Guelker, PXSO				→
4.4.4: Revise NVO Orders, Attain NVO Impact & Implementation (5)	T. McEvoy, NVSO		See Note (5) (R)		Y→
4.4.5: W78 SS-21 Start-up Authorization (6)	R. McKay, NA-122				↗
4.4.6: B83 SS-21 Start-up Authorization (7)	M.Bruns, NA-122				↗
4.4.7: Accelerated tooling (W88 bay Ops, W78 bay & cell Ops) (8)	J Kirby, PXSO				↗
4.5.1: IP 98-2 Final Assessment Report	D. Beck, NA-12				→

Notes

(1) 4.3.2 NNSA RA completed. Significant issues with W79 and W87 programs. PXSO expects to have RA report issued by 2/28/03

(2) 4.3.3 Phase I Transportion SAR Module and Implementation Plan approved. Phase II & III Weapon response data is biggest uncertainty for meeting 10 CFR 830 deadline. Labs and BWXT expect to have report submitted by 2/13/03. On schedule to June 2003 completion per IP.

(3) 4.3.4 DOE Readiness Assessment (RA) for Group 1 controls complete. Groups 2, 3, and 4 TBD.

(4) 4.3.9 Beneficial occupancey taken on December 12, 2002. Will be reported complete in next quarterly report.

(5) 4.4.4 NV O 452.1B and NV O 452.2B issued, Implementation Plan due 3/30/03. NV anticipates on time delivery.

(6) 4.4.5 98-2 IP completion date for W78 is is 8/28/03, On schedule.

(7) 4.4.6 98-2 IP completion date for B83 is 5/30/04, On schedule.

(8) 4.4.7 W88 bay tooling delayed because the tooling engineer was held back by emerging issues on the Enhanced Transportation Cart. On track per recovery schedule to implement W88 bay tooling by 5/21/2003. On track to implement W78 tooling by 8/31/03

HQ POC Jeff Underwood (NA-124) 3-8303 01/16/03

National Nuclear Security Administration

Recommendation 98-2

Commitments Delivered This Quarter

Accelerating Safety Management Improvements at the Pantex Plant

- Commitments Delivered Since Last Quarter
  - 4.3.9 Completion of 12-44 Modifications

National Nuclear Security Administration

Recommendation 98-2

Open Commitments (1)

Accelerating Safety Management Improvements at the Pantex Plant

- 4.3.2 DOE Readiness Assessment Report for Fire Protection
  - Readiness Assessment for in December, 2002.
  - Issues remain concerning W79 and W87
  - Final RA report anticipated prior to February 28, 2003
- 4.3.3, DOE-Approved BIO Module/TSR for On-Site Transportation and DOE-Approved Implementation Plan for On-site Transportation Controls
  - Phase I SAR Implementation Plan approved.
  - Phases II and III on schedule per Authorization Basis Upgrade plan, on time completion anticipated.
- 4.3.4 DOE Readiness Assessment Report for Transportation
  - Phase 1, Group 1 controls RA completed.
  - The final extent of NNSA readiness verification activities will not be determined until final IP approved in June.

National Nuclear Security Administration

Recommendation 98-2

Open Commitments (2)

Accelerating Safety Management Improvements at the Pantex Plant

- 4.4.4, Revision to Corresponding NVO Orders to align with published changes to DOE O 452.1 and 452.2 and DOE-STD-3015
  - Orders issued. NV has deferred Implementation Plan until 3/31/03.
- 4.4.5 W78 (CHE) SS-21 Start-up Authorization
  - On schedule to IP completion date of 8/28/03
  - Accelerated tooling on site
- 4.4.6 B83 (IHE) SS-21 Start-up Authorization
  - Project started on time in 6/02. Milestone 1 met in 8/02.
  - On schedule for IP completion date of 5/30/04.

National Nuclear Security Administration

Recommendation 98-2

Open Commitments (3)

Accelerating Safety Management Improvements at the Pantex Plant

- 4.4.7 Accelerated tooling for W78 and W88
  - On schedule for W78, tooling on site.
  - Meeting recovery schedule for W88, tooling expected on site by 1/31/03
- 4.5.1 IP 98-2 Final Assessment Report
  - Anticipate development of initial draft in FY 2003 to discuss with DNFSB staff in parallel with completion of final commitment in 2004.

National Nuclear Security Administration

Backup Slides Follow

United States Government

Department of Energy

memorandum

Albuquerque Operations Office
Office of Amarillo Site Operations

DATE: DEC 30 2002

REPLY TO ATTN OF: ADOA:FR:DMR

SUBJECT Office of Amarillo Site Operations Readiness Assessment Report for Transportation Safety Analysis Report Module Phase 1

TO: Dennis R. Ruddy, President & General Manager, BWXT Pantex LLC

Attached is the Office of Amarillo Site Operations Readiness Assessment Report for Transportation Safety Analysis Report Module Phase 1 Group 1 Implementation. There was one Category A finding and three Category B findings noted during this assessment. Corrective actions are required for Category A findings; Category B findings require the submittal of Corrective Action plans. Please submit documentation of proper action on these findings to this office by January 10, 2003.

Any questions regarding this report should be directed to David Rast at extension 5937.

Daniel E. Glenn
Director

cc:w/attachment
C. VanArsdale, BWXT. 12-11C
G. Watso, BWXT, 12-11A
V. Hughes, BWXT, 12-6D
S. Ufford, BWXT, 12-61
T. Ellis, BWXT, 12-2B
C. Turner, BWXT, 12-2B
J. Kirby, OASO, 12-36
D. Brunell, OASO, 12-36
G. Rose, OASO, 12-42
J. Pugh, OASO, 12-36
R. Moore, OASO, 12-36
J. Biggers, OASO, 12-36
M. Blackburn, OASO, 12-36
D. Rast, OASO, 12-36
S:ADOA/2002Memos/8658

National Nuclear Security Administration

Final Report

NNSA
Office of Amarillo Site Operations
Readiness Assessment (RA)

Transportation Safety Analysis
Report Module Phase I Group I
Implementation

November 12-25, 2002
Revision 1

Signature Page

The following members of the RA team reviewed their individual functional areas and assisted the team leader in making an overall evaluation of the readiness of this operation. The undersigned concur with the contents and conclusions of this report.

Grady Rose (Ops/Emerg Mgt)	12-12-02 Date	Julian Biggers(MT/TR)	Date
Jody Pugh (Ops/Emerg Mgt)	12-17-02 Date	Roger Moore (MS)	12/17/02 Date
Greg Baker (Ops/Emerg Mgt/Intern)	Date	Emory Hogan (AB/NES)	12-17-2002 Date
Mark Blackburn (Asst. Team Lead)	12/17/02 Date	David Rast (Team Leader)	12/17/02 Date

Executive Summary

A NNSA Office of Amarillo Site Operations (OASO) Readiness Assessment (RA) was conducted from November 12-25, 2002 per the approved implementation plan dated November 13, 2002. Implementing the Transportation Safety Analysis Report (TSAR) Module Phase 1 controls has been designated as a restart activity by the Director of the Office of Amarillo Site Operations (OASO) because of the imposition of new safety requirements and associated revised safety basis on existing nuclear explosive and nuclear material operations. The purpose of the review was to assess the readiness of the personnel, procedures and facilities associated with Phase 1 Group I of these controls.

One concern we identified as a Category A Finding:

1. TR1-1 Personnel responsible for the transportation of Nuclear Explosives were not able to identify required program knowledge and training courses provided did not instruct personnel on Technical Safety Requirements controls.

Three concerns were noted as Category B Findings:

1. AB-1-4 The Master Authorization Agreement was not updated to reflect the inclusion of the Transportation Safety Analysis report requirements.

2. SEO-1-1 Operating Procedure F7-5000 does not identify the Administrative Controls Specific Requirements as required by the Technical Safety Requirements.

3. SEO-1-1 Lack of individual deficiency reporting requirements and program systematic breakdown reporting requirements reflected in the Safety Requirements Section of F7-5001.

There were three observations identified:

1. During the course of this review a gear controlling the roll-up access door at 12-98 fell from the door drive shaft to the ground. Both roll-up doors at 12-98 are currently tagged as out of service due to mechanical failures. The critique of this event revealed that the 12-98 roll-up doors are not part of any preventative maintenance program. 12-98 should not be used as a transfer facility until repairs of doors are completed, maintenance program initiated and operability criteria established.
2. During the trace of the flow-down of documents, it was found that the AB-SAR-314343 (Transportation SAR) had undergone several revisions 1) Pre Approved version February 2002, 2) OASO/SER approved version April 1, 2002, and 3) Post SER OASO concurred version dated July 3, 2002. The TSAR pages all have dates of April 1, 2002. The fact that the chapter pages of all versions have the same date and no indication of different revision numbers made validation of the appropriate updates and incorporations needlessly difficult. Lack of an unmistakable document tracking system can lead to the use of the wrong requirements document and a TSAR/TSR violation.
3. The training provided on recovery actions for TSR 4.3.3.13, in Course #370.03, requires the operator to "slowly and carefully" move the trailer to an approved area where a test pull can be conducted. The movement of a tractor/trailer combination following discovery that a test pull was not conducted prior to movement of a NE is not discussed in the SAR or in F7-5001. F7-5001 requires that the tractor/trailer be brought to a safe and stable configuration, and then a test pull be conducted before continuing movement.

All personnel interviewed on this TSR requirement stated that they would stop, bring the tractor/trailer to a safe and stable configuration, and perform a test pull. This accurately reflects the procedural requirements. None of the personnel interviewed stated that they would move the tractor/trailer further before they conducted a test pull.

In the collective opinion of the review team, for operations associated with Phase I, Group I Transportation TSR controls, the overall contractors mplementation is deemed satisfactory.

Introduction

This report details the results of the readiness assessment of the Transportation TSR Phase I Group I Implementation Process performed at Pantex from November 12-22, 2002. The scope of the assessment was defined in the NNSA Plan of Action approved on November 8, 2002, and as further detailed in the NNSA Implementation Plan dated November 13, 2002.

The authorization basis documents at Pantex Plant are being integrated into a three-volume safety analysis report (SAR) and a technical safety requirements (TSR) document. When completed, these two documents will provide the documented safety analysis required by 10 CFR 830, *Nuclear Safety Management*. The three volumes of the safety analysis report will consist of: Volume I C, Sitewide SAR, Volume II C, Facility SAR Modules, and Volume III C, Weapon Program Hazard Analysis Reports (HARs). The Transportation SAR Module will be one of the facility SAR modules that will make up Volume II.

The Transportation SAR Module addresses the on-site transportation of nuclear explosives and nuclear materials. The Transportation SAR Module is being managed as three separate deliverables. Phase I includes the transportation activities for nuclear explosives that are packaged for off-site transportation to (or from) their ultimate user (UU). Phase II includes transportation activities for nuclear explosives in other configurations, Phase III includes the transportation activities for nuclear materials. Phases II and III are being worked in parallel. The scope of this review will assess the readiness of Phase I transportation activities for nuclear explosives that are packaged for off-site transportation to (or from) their ultimate user (UU).

Summary of Results

The results of the review of each criterion are in the individual assessment forms in Appendix A. The Readiness Assessment identified 1 (one) Category A finding, 3 (three) Category B findings and three observations. The following is a summary of the findings:

Category A (Pre-start):

1. TR1-1 Personnel responsible for the transportation of Nuclear Explosives were not able to identify required program knowledge and training courses provided did not instruct personnel on Technical Safety Requirements controls.

Category B (Post-Start):

1. AB-1-4 The Master Authorization Agreement was not updated to reflect the inclusion of the Transportation Safety Analysis report requirements

2. SEO-1-1 Operating Procedure F7-5000 does not identify the Administrative Controls Specific Requirements as required by the Technical Safety Requirements.

3. SEO-1-1 Lack of individual deficiency reporting requirements and program systematic breakdown reporting requirements reflected in the Safety Requirements Section of F7-5001.

Observations:

1. During the course of this review a gear controlling the roll-up access door at 12-98 fell from the door drive shaft to the ground. Both roll-up doors at 12-98 are currently tagged as out of service due to mechanical failures. The critique of this event revealed that the 12-98 roll-up doors are not part of any preventative maintenance program. 12-98 should not be used as a transfer facility until repairs of doors are completed, maintenance program initiated and operability criteria established.
2. During the trace of the flow-down of documents, it was found that the AB-SAR-314343 (Transportation SAR) had undergone several revisions 1) Pre Approved version February 2002, 2) OASO/SER approved version April 1, 2002, and 3) Post SER OASO concurred version dated July 3, 2002. The TSAR pages all have dates of April 1, 2002. The fact that the chapter pages of all versions have the same date and no indication of different revision numbers made validation of the appropriate updates and incorporations needlessly difficult. Lack of an unmistakable document tracking system can lead to the use of the wrong requirements document and a TSAR/TSR violation.
3. The training provided on recovery actions for TSR 4.3.3.13, in Course #370.03, requires the operator to "slowly and carefully" move the trailer to an approved area where a test pull can be conducted. The movement of a tractor/trailer combination following discovery that a test pull was not conducted prior to movement of a NE is not discussed in the SAR or in F7-5001. F7-5001 requires that the tractor/trailer be brought to a safe and stable configuration, and then a test pull be conducted before continuing movement. All personnel interviewed on this TSR requirement stated that they would stop, bring the tractor/trailer to a safe and stable configuration, and perform a test pull. This accurately reflects the procedural requirements. None of the personnel interviewed stated that they would move the tractor/trailer further before they conducted a test pull.

Transportation controls will be implemented in three phases (each having multiple groups) in order to facilitate safety improvements as expeditiously as possible. A Readiness Verification and Contractor Readiness Assessment will be conducted after each stage has been implemented. Three NNSA/OASO readiness validations will be performed to verify implementation.

Note: The numbering system used to identify the administrative controls and the design features have been taken from the Transportation Safety Analysis Module Chapter 4.

Implementation Group I

Administrative Controls

4.3.3.1	Severe Weather Program
4.3.3.3	Vehicle and Access Denial Blocks
4.3.3.4	NE Trailer Parking Locations
4.3.3.5	NE Custody Transfers
4.3.3.6	Turn-Off Building 4-26 Gas Lines
4.3.3.8	NE-Prohibited Areas
4.3.3.10	NE Transport Trailer Cargo
4.3.3.12	NE Transport Trailer Loading/Unloading
4.3.3.13	NE Transport Tractor/Trailer Test Pull
4.3.3.14	Forklifts and Tow Motors (moved to Phase I Group IV)

4.3.3.19	Placement of Portable Lights
4.3.3.22	NE Convoy Speed Limit
4.3.3.24	NE Convoy Routes
4.3.3.27	NELA Staging
4.3.3.28	NE Handlers
4.3.3.29	Walker/Spotter
4.3.3.32	Snow Loading

Conduct of Review

The RA consisted of an OASO review of the flowdown of the Phase I, Group I Transportation TSR controls that apply to "plant wide" activities via BWXT plant standards and process procedures. The team leader selected team members and assigned them to subject areas according to their background and experience and previous experience performing readiness assessments. Facility walk-downs, demonstrations, personnel interviews and document reviews were performed in order to gauge the readiness to safely perform operations associated with these controls. The team met daily during the RA to facilitate team member discussion of significant observations or problems and ensure crosscutting issues are identified to other team members. Following the team meeting, the contractor was briefed on the activities and results of the day. Based on these meetings, it is the belief of the team leader that the contractor was given the opportunity to validate the technical accuracy of issues.

The objectives and criteria selected and assessed during the review can be found in assessment forms in Appendix A.

The team consists of the following OASO employees:

RA Team Member	Assigned Functional Area
David Rast	Team Lead
Mark Blackburn	Assistant Team Lead
Grady Rose	Operations and Emergency Management
Julian Biggers	Maintenance and Training
Jody Pugh	Operations and Emergency Management
Roger Moore	Management Systems
Emory Hogan	Authorization Basis and NES
Greg Baker	OASO Intern

Conclusion

It is the recommendation of the review team that the OASO Director authorize BWXT-Pantex to proceed with operations associated with Phase I, Group I Transportation TSR controls.

Lessons Learned

This project provided limited lead-time for preparation and validation of procedures. For this reason, there were more procedure errors than expected. The CRA did not document procedural deficiencies even though they indicated that some were identified and fixed during the review. It is important to document these deficiencies in order to give the approval authority a feel for the number and type of issues that were discovered during the review.

The Plan of Action for this review was signed on November 8, 2002, and the final briefing to the approval authority on the results of the review took place on November 25, 2002. This review showed that a defensible, appropriately scoped and focused assessment can be performed in a limited time frame.

The prerequisites for the conduct of an OASO Readiness Review should be modified to include the update of site Master Authorization Agreement. This is especially important when the MAA may undergo editorial changes without OASO approval.

The Implementation Plan definition of Category A Pre-start findings should be expanded to include findings that may lead to a TSR violation not just findings that are currently a TSR violation.

Appendix A
Readiness Review Forms

READINESS REVIEW APPRAISAL FORM
FORM - 1

Objective Number:	Criteria Number:	Date of Review:
AB-1	**1, 2and 3**	**November 12-22, 2002**

Objective: Assumptions and controls from the Transportation Safety Analysis Report (SAR) and associated Technical Safety Requirements (TSR's) have been adequately implemented.

Criteria:

1. The Transportation SAR and TSR's are approved by the U. S. Department of Energy (DOE), with all Conditions of Approval (COAs) formally resolved with the Office of Amarillo Site Operations (OASO) (prestart COAs are closed and poststart COAs have approved action plans).

2. Configuration of the systems, structures, or components (SSCs) credited in the Transportation SAR and TSR's agree with their descriptions in these authorization basis documents.

3. Assumptions and controls from the Transportation SAR and TSR's have been incorporated into procedures used by operating personnel.

Method of Appraisal:

Documents and personnel identified were reviewed and interviewed to determine the status/level of implementation/flow-down/compatibility with the above defined Objectives and Criteria.

Interviews:

- OASO Operations Personal
- Transportation Supervisor
- MAA Document Custodian
- CRA Authorization Basis POC
- CRA Production Stores/RV Team Lead
- CRA Emergency Management POC

References:

1. BWXT Transportation SAR Module Phase 1 Implementation Plan Revision 3, Dated October 11, 2002.

2. Albuquerque Operations Office and BWXT Pantex, LLC Master Authorization Agreement for Nuclear Operation at the Pantex Plant Amarillo, Texas, (ABC-258600 Rev 3, Change 58, effective November 12, 2002).

3. Plant Standard STD-0154 Authorization Agreements (U).

4. BWXT Correspondence dated November 15, 2002, Subject Master Authorization Agreement, ABC-258600, Revision 3, Change 60 Internal Review (Change request AA-02-45) Proposed Effective3 Date November 15, 2002).

5. Safety Evaluation Report Transportation Phase 1 Safety Analysis Report dated April 1, 2002.

6. Transmittal of Response to Comments from Appendix E of Safety Evaluation Report, Transportation-Phase I Safety Analysis Report (Response Dated 05/03/02).

7. OASO Memorandum dated July 3, 2002, subject" Response to Transportation Safety Analysis Report Comments" from Daniel E. Glen to Dennis R. Ruddy.

8. AB-SAR-314343, Revision date07/03/02 Transportation Safety Analysis.

9. RPT-SAR-199801, Technical Safety Requirements for Pantex Facilities.

10. Final Report of Readiness Verification (RV) Team Implementation of the Transportation Safety Analysis Report (TSAR) and associated Technical Safety Requirements (Group I of Phase I Controls).

11. Final Report of the BWXT-Pantex Transportation Safety Analysis Report Phase I Group I Implementation Readiness Assessment (RA) October 15-25, 2002 Revision 0.

12. BWXT Safety Basis Database (Identifies the Flow-Down documents for controls),

13. Plant Standard 7-5638.1 General Safety Requirements for Handling and Transporting Nuclear Explosives, Nuclear Components, and NELAS (U).

14. F7-5001 Issue ®, Administrative Control Specific Requirements for Zone 4 and Zone 12 South Nuclear and Nuclear Explosive Facilities (U).

15. 7-5650 General Safety Requirements for Zone 4 (U),

16. P7-5080 Issue (T) Safety Requirements- On Site Transportation of Chemical Explosives, Nuclear Explosives and Weapon Components (U)

Evolutions/operations witnessed: None

Discussion:

Criteria 1. The Transportation SAR and TSR's are approved by the U. S. Department of Energy (DOE), with all Conditions of Approval (COAs) formally resolved with

the Office of Amarillo Site Operations (OASO) (pre-start COAs are closed and post-start COAs have approved action plans).

Comment: Criteria 1. has been verified. The TSAR and TSR's have been approved by OASO. All conditions of approval have been verified complete as defined by the OASO Memorandum dated July 3, 2002, subject" Response to Transportation Safety Analysis Report Comments" from Daniel E. Glen to Dennis R. Ruddy. The Applicability Matrices from RPT-SAR-199801, Revision 18, dated November 12, 2002 has been updated.

Criteria 2. Configuration of the systems, structures, or components (SSCs) credited in the Transportation SAR and TSR's agree with their descriptions in these authorization basis documents.

Comment: The Configuration of the systems, structures, or components (SSCs) that have been flowed-down to the Controls (TSR's) identified in the Transportation Safety Analysis Report and thus flowed to the RPT-SAR-199801, Technical Safety Requirements for Pantex Facilities are in agreement with their description in these authorization basis documents.

Criteria 3. Assumptions and controls from the Transportation SAR and TSR's have been incorporated into procedures used by operating personnel.

Comment: Assumptions and controls flowed-down to the Controls (TSR's) section, identified in the Transportation Safety Analysis Report, and thus flowed to the RPT-SAR-199801, Technical Safety Requirements for Pantex Facilities have been incorporated into procedures used by operating personnel.

Conclusion:

All Criteria have been met.

Issue(s): None

Inspected by: Emory Hogan — Team Member

Approved by: Dave Rost — Team Leader

FORM - 1

Objective Number:	Criteria Number:	Date of Review:
AB-1	4 and 5	November 12-22, 2002

Objective: Assumptions and controls from the Transportation Safety Analysis Report (SAR) and associated Technical Safety Requirements (TSR's) have been adequately implemented.

Criteria:

4. The effective TSR document accurately reflects the applicability of Transportation TSR's.

5. The Safety Basis Database (SBDB) correctly shows the linkage between the authorization basis and the implementing documents.

Method of Appraisal:

Documents and personnel identified were reviewed and interviewed to determine the status/level of implementation/flow-down/compatibility with the above defined Objectives and Criteria.

Interviews:

- OASO Operations Personnel
- Transportation Supervisor
- MAA Document Custodian
- CRA Authorization Basis POC
- CRA Production Stores/RV Team Lead
- CRA Emergency Management POC

Reference::

1. BWXT Transportation SAR Module Phase 1 Implementation Plan Revision 3, Dated October 11, 2002.

2. Albuquerque Operations Office and BWXT Pantex, LLC Master Authorization Agreement for Nuclear Operation at the Pantex Plant Amarillo, Texas, (ABC-258600 Rev 3, Change 58, effective November 12, 2002).

3. Plant Standard STD-0154 Authorization Agreements (U).

4. BWXT Correspondence dated November 15, 2002, Subject Master Authorization Agreement, ABC-258600, Revision 3, Change 60 Internal Review (Change request AA-02-45) Proposed Effective3 Date November 15, 2002).

5. Safety Evaluation Report Transportation Phase 1 Safety Analysis Report dated April 1, 2002.

6. Transmittal of Response to Comments from Appendix E of Safety Evaluation Report, Transportation-Phase I Safety Analysis Report (Response Dated 05/03/02).

7. OASO Memorandum dated July 3, 2002, subject" Response to Transportation Safety Analysis Report Comments" from Daniel E. Glen to Dennis R. Ruddy.

8. AB-SAR-314343,Revision date07/03/02 Transportation Safety Analysis.

9. RPT-SAR-199801, Technical Safety Requirements for Pantex Facilities

10. Final Report of Readiness Verification (RV) Team Implementation of the Transportation Safety Analysis Report (TSAR) and associated Technical Safety Requirements (Group I of Phase I Controls).

11. Final Report of the BWXT-Pantex Transportation Safety Analysis Report Phase I Group I Implementation Readiness Assessment (RA) October 15-25, 2002 Revision 0.

12. BWXT Safety Basis Database (Identifies the Flow-Down documents for controls).

13. Plant Standard 7-5638.1 General Safety Requirements for Handling and Transporting Nuclear Explosives, Nuclear Components, and NELAS (U).

14. F7-5001 Issue R, Administrative Control Specific Requirements for Zone 4 and Zone 12 South Nuclear and Nuclear Explosive Facilities (U).

15. 7-5650 General Safety Requirements for Zone 4 (U).

16. P7-5080 Issue (T) Safety Requirements- On Site Transportation of Chemical Explosives, Nuclear Explosives and Weapon Components (U).

Evolutions/operations witnessed: None

Discussion:

Criteria 4. The effective TSR document accurately reflects the applicability of Transportation TSRs.

Comment: Based on the requirements identified in Albuquerque Operations Office and BWXT Pantex, LLC Master Authorization Agreement for Nuclear Operation at the Pantex Plant Amarillo, Texas, (ABC-258600 Rev 3, Change 58, effective November 12, 2002), the MAA must remain updated at all times. BWXT declared readiness 11-11-2002, and identified that the portion of the Transportation SAR (TSAR) (Phase 1 Group 1) was implemented. Upon investigation, it was found that the Master Authorization Agreement (MAA), which defines the contractual requirements between DOE/NNSA and BWXT, had not been updated to reflect the new TSAR requirement. There was no plan

identified by BWXT to address the MAA update. Interviews suggest that. prior to OASO RA Team inquiry, the plan would not have been updated until the

completion of all Phase 1 Group 1-4 activities, which is scheduled for October 1, 2003.

Criteria 5. **The Safety Basis Database (SBDB) correctly shows the linkage between the authorization basis and the implementing documents.**

Comment: During the trace of the flow-down of documents, it was found that the AB-SAR-314343 (Transportation SAR) had undergone several revisions 1) Pre Approved version February 2002, 2) OASO/SER approved version April 1, 2002, and 3) Post SER OASO concurred version dated July 3, 2002. The TSAR pages all have dates of April 1, 2002. The fact that the chapter pages of all versions have the same date and no indication of different revision numbers made validation of the appropriate updates and incorporations needlessly difficult. Lack of a unmistakable document tracking system can lead to the use of the wrong requirements document and a TSAR/TSR violation.

When interviewing BWXT Transportation personnel on the applicability and implementation of (4.3.3.27), I was told that this requirement had not been implemented, and was in the works for Phase 1 Group 2 implementation. I requested verification and was shown the BWXT Intranet AB documents site that showed a **DOE Approved Not Implemented** document. The confusion as to what part of the TSAR is approved (which Phase and Group/specific requirements) , what part is currently being reviewed for future approval (which Phase and Group/specific requirements) is leading to a false perception of the current authorization basis.

Conclusion:

Criteria 4 has not been met. Criteria 5 has been partially met..

Issue(s):

Category B Findings: MAA must be updated concurrently with AB Document Change.

Observation:

Transportation SAR (AB-SAR-314343) had multiple changes that didn't follow required document control procedures.

Emory Hogan

Inspected by: Emory Hogan — Team Member

Approved by: Donald Rost — Team Leader

READINESS REVIEW DEFICIENCY FORM
FORM - 2

Objective Number: AB-1	Criteria Number: 4	Date of Review: November 12-22, 2002

Issue: MAA need to be updated concurrently upon AB Document Change.

Requirement: Albuquerque Operations Office and BWXT Pantex, LLC Master Authorization Agreement for Nuclear Operation at the Pantex Plant Amarillo, Texas, (ABC-258600 Rev 3, Change 58, effective November 12, 2002):

Section 9.4.3 Administrative Change: Pg 13 " As TSR's and ABCDs are added or deleted, this Agreement shall be maintained current at all times."

Reference:

1) Albuquerque Operations Office and BWXT Pantex, LLC Master Authorization Agreement for Nuclear Operation at the Pantex Plant Amarillo, Texas, (ABC-258600 Rev 3, Change 58, effective November 12, 2002).

2) Plant Standard STD-0154 Authorization Agreements (U).

3) BWXT Correspondence dated November 15, 2002, Subject Master Authorization Agreement, ABC-258600, Revision 3, Change 60 Internal Review (Change request AA-02-45) Proposed Effective3 Date November 15, 2002).

Discussion:

BWXT declared readiness 11-11-2002, and identified that Phase I Group I of the Transportation SAR (TSAR) was implemented. Upon investigation, it was found that the Master Authorization Agreement (MAA), which defines the contractual requirements between DOE/NNSA and BWXT, had not been updated to reflect the new TSAR requirement. There was no plan identified by BWXT to address the MAA update. Interviews suggest that prior to OASO RA Team inquiry, the plan would not have been updated until the completion of all Phase 1 Group 1-4 activities, which is scheduled for October 1, 2003.

Finding Designation:

Category B finding.

Inspected by: Emory Hogan — Team Member

Approved by: David Rost — Team Leader

READINESS REVIEW DEFICIENCY FORM
FORM - 2

Objective Number: AB-1	Criteria Number: 5	Date of Review: November 12-22, 2002

Issue: Documents must be easily traceable/traceable to allow the BWXT personnel undoubted access to the TSAR/TSR requirements.

Requirement: The effective TSR document does accurately reflect the applicability of Transportation TSRs.

Reference(s):

1. Safety Evaluation Report Transportation Phase 1 Safety Analysis Report dated April 1, 2002.

2. Transmittal of Response to Comments from Appendix E of Safety Evaluation Report, Transportation-Phase I Safety Analysis Report (Response Dated 05/03/02).

3. OASO Memorandum dated July 3, 2002, subject" Response to Transportation Safety Analysis Report Comments" from Daniel E. Glen to Dennis R. Ruddy.

4. AB-SAR-314343, Revision date07/03/02 Transportation Safety Analysis.

5. RPT-SAR-199801, Technical Safety Requirements for Pantex Facilities.

6. Final Report of Readiness Verification (RV) Team Implementation of the Transportation Safety Analysis Report (TSAR) and associated Technical Safety Requirements (Group 1 of Phase 1 Controls).

7. Final Report of the BWXT-Pantex Transportation Safety Analysis Report Phase I Group I Implementation Readiness Assessment (RA) October 15-25, 2002 Revision 0.

8. BWXT Safety Basis Database (Identifies the Flow-Down documents for controls).

Discussion:

During the trace of the flow-down of documents, it was found that the AB-SAR-314343 (Transportation SAR) had undergone several revisions 1) Pre Approved version February 2002, 2) OASO/SER approved version April 1, 2002, and 3) Post SER OASO concurred version dated July 3, 2002. The TSAR pages all have dates of April 1, 2002. The fact that the chapter pages of all versions have the same date and no indication of different revision numbers made validation

of the appropriate updates and incorporations needlessly difficult. Lack of an unmistakable document tracking system can lead to the use of the wrong requirements document and a TSAR/TSR violation.

When interviewing BWXT Transportation personnel on the applicability and implementation of (4.3.3.27), The reviewer was told that this requirement had not been implemented, and was in the works for Phase 1 Group 2 implementation. The reviewer requested verification and was shown the BWXT Intranet AB documents site, which showed a **DOE Approved Not Implemented** document. The confusion as to what part of the TSAR is approved (which Phase and Group/specific requirements) and what part is currently being reviewed for future approval (which Phase and Group/specific requirements) is leading to a false perception of the current authorization basis.

Finding Designation:

Observation.

Inspected by: Emory Hogan — Team Member

Approved by: Dave Rost — Team Leader

READINESS REVIEW APPRAISAL FORM
FORM - 1

Objective Number:	Criteria Number:	Date of Review:
TSAR-AB-1	3	November 12-22, 2002

Objective: Assumptions and controls from the Transportation Safety Analysis Report (SAR) and associated Technical Safety Requirements (TSR's) have been adequately implemented.

Criteria:

3. Assumptions and controls from the Transportation SAR and TSR's have been incorporated into procedures used by operating personnel.

Method of Appraisal:

Interviews:

- Transportation Supervisor
- NE Handler

References:

1. F7-5001, Issue R, *Administrative Controls Specific Requirements for Zone 4 and Zone 12-South Nuclear and Nuclear Explosive Facilities.*

2. 7-5650, Issue EH, *General Safety Requirements for Zone 4.*

3. 7-5638.1, Issue DH, General Safety Requirements for Handling and Transporting Nuclear Explosives, Nuclear Components and NELAs.

4. P7-5080, Issue T, *Safety Requirements-On Site Transportation of Chemical Explosives, Nuclear Explosives and Weapon Components.*

Evolutions/operations witnessed:

Portable lights used for Zone 4 operations were observes on Pad 200 of Zone 4.

Movement of materials from Zone 4 to Zone 12.

Discussion:

This review item focuses on the use of barricades and lighting systems to support the movement of Nuclear Explosives. In addition the use and presence of natural gas system in build 4-26.

The Transportation Program Safety Analysis Report required that during movement outside bays, cells and magazines

SAR 4.3.3.19, Transportation Program – Placement of Portable Lights:

> Operating procedures and training will be implemented and maintained to require NE handlers to locate portable lights used for transportation activities where they will not interfere with transportation activities. Specifically, portable lights are to be positioned so that if they fall, they will not strike the NE.

This requirement is being administratively controlled by incorporation into Facility Procedure F7-5001, Issue R, *Administrative Controls Specific Requirements for Zone 4 and Zone 12-South Nuclear and Nuclear Explosive Facilities.* (Reference 2.8.26)

NE handlers are specifically required to verify the portable lights are properly used:

SAR4.3.3.18, Transportation Program – Weight of Portable Lights:

> Operating procedures and training are in place to require that portable lights used during NE loading and unloading on the Zone 4 MAA aprons are verified to not weigh more than 100 pounds each by the NE handlers. The operations supervisor or designee verifies compliance with this requirement.

SAR 4.3.3.19, Transportation Program – Placement of Portable Lights:

> Operating procedures and training will be implemented and maintained to require NE handlers to locate portable lights used for transportation activities where they will not interfere with transportation activities. Specifically, portable lights are to be positioned so that if they fall, they will not strike the NE.

SAR4.3.3.18, Transportation Program – Weight of Portable Lights:

> Operating procedures and training are in place to require that portable lights used during NE loading and unloading on the Zone 4 MAA aprons are verified to not weigh more than 100 pounds each by the NE handlers. The operations supervisor or designee verifies compliance with this requirement.

SAR 4.3.3.19, Transportation Program – Placement of Portable Lights:

> Operating procedures and training will be implemented and maintained to require NE handlers to locate portable lights used for transportation activities where they will not interfere with transportation activities. Specifically, portable lights are to be positioned so that if they fall, they will not strike the NE.

These requirements are being administratively controlled by incorporation into Facility Procedure F7-5001, Issue R, *Administrative Controls Specific Requirements for Zone 4 and Zone 12-South Nuclear and Nuclear Explosive Facilities.* (Reference 2.8.25 and 2.8.26)

NE magazine approach operations:

SAR 4.3.3.3, Transportation Program – Vehicles and Access Denial Blocks:

Operating procedures and training shall be implemented to require vehicles and access denial blocks to be positioned around the magazine approach during loading or unloading operations at a Zone 4 magazine and to place vehicles around loading or unloading operations at the 12-98 dock.

These requirements are being administratively controlled by incorporation into Facility Procedure F7-5001, Issue R, *Administrative Controls Specific Requirements for Zone 4 and Zone 12-South Nuclear and Nuclear Explosive Facilities.* (Reference 2.8.21, 2.8.25 and 2.8.26)

Gas Lines in Building 4-26

SAR 4.3.3.6, Transportation Program – Turn Off building 4-26 Gas lines:

Operating procedures and training are implemented and maintained to require gas supply to building 4-26 to be turned of prior to NE operations in the building and not to be turned back on while NE operations are taking place in Building 4-26. Procedures also require a second person to verify the gas supply line is turned off.

These requirements are being administratively controlled by incorporation into Facility Procedure F7-5001, Issue R, *Administrative Controls Specific Requirements for Zone 4 and Zone 12-South Nuclear and Nuclear Explosive Facilities.* (Reference 2.8.5), and Operations and Inspections Standard, 7-5650, *General Safety Requirements for Zone 4.*

Finding Designation:

Observation.

During the course of this review a gear controlling the roll-up access door at 12-98 fell from the door drive shaft to the ground. Both roll-up doors at 12-98 are currently tagged as out of service due to mechanical failures. The critique of this event revealed that the 12-98 roll-up doors are not part of any preventative maintenance program. 12-98 should not be used as a transfer facility until repairs of doors are completed, maintenance program initiated and operability criteria established.

Conclusion:

This Criterion has been met.

Inspected by: _____ **Approved by:** _____
Team Member — Team Leader
David Rast

READINESS REVIEW APPRAISAL FORM
FORM - 1

Objective Number:	Criteria Number:	Date of Review:
CM-1	1-4	November 12-22, 2002

Objective: Configuration management of the systems, structures or components (SSCs) credited in the Transportation SAR and TSR's, has been implemented.

Criteria:

1. SSCs credited in the Transportation SAR and TSR's are controlled under the Plant's Configuration Management Program.

2. A safety evaluation is performed for temporary or permanent changes to the facility, and its process and utility systems as described in existing safety documentation.

3. Requirements are reflected in the appropriate documentation and physical plant configuration.

4. Actual configuration of equipment or components matches the DFs credited in the Transportation SAR and TSR's.

Method of Appraisal:

Interviews: None

Reference::

1. "Transportation Safety Analysis Report Module", AB-SAR-314343, Proposed Change AB-01-0042.

2. "Technical Safety Requirements for Pantex Facilities", RPT-SAR-199801, Proposed Change AB-01-0042.

3. "Approval of Authorization Basis Change Proposal AB-02-0042, 'Transportation Safety Analysis Report Module (TSAR) Phase I and Associated Technical Safety Requirements, April 1, 2002.

Evolutions/operations witnessed: None

Discussion of Results:

This criterion was evaluated to confirm that it had been properly excluded from review during the Contractor Readiness Assessment activities. This review confirms that with the breakout of Tow Motors and Forklift requirements into Phase 1 Group 4, this criteria is not applicable.

Conclusion:

This criterion is not applicable to the Administrative Controls being implemented during Phase I Group I.

Inspected by: _____ **Approved by:** _____
Team Member Team Leader
David Rast

FORM 1

Objective Number: MS-1	Date of Review: November 12-22, 2002

Objective: Management systems have been established to ensure the Transportation SAR and TSR's are implemented and that transportation operations are safely restarted.

Criteria:

1. The Transition to Operations Plan for the Transportation SAR and TSR's adequately details those activities necessary to ensure that operations can be safely conducted within the established safety envelope for the facility.

2. Sufficient quantities of new equipment have been procured to support anticipated transportation operations.

Interviews:

- L. M. Sanchez, CRA Management Systems Functional Area Expert
- J. D. Gallagher, CRA Authorization Basis Functional Area Expert
- S. W. Spivey, BWXT Authorization Basis Engineer

Reference::

1. *Transition to Operations Plan for The Restart of Transportation Safety Analysis Report Module Phase I, Phase II, and Phase III Implementation*, Revision 0, October 8, 2002.

2. ABC – 258600, *Master Authorization Agreement For Nuclear Operations at the Pantex Plant Amarillo, Texas* Revision 3, Change 60, Dated November 15, 2002.

3. AB-SAR-314343, Transportation Safety Analysis Report Module, April 1, 2002.

4. RPT-SAR-199801, *Technical Safety Requirements*, Section 5, Revision 18.

5. PX-RA-IP-02-10, *RA Implementation Plan For Transportation Safety Analysis Report Phase I Implementation*, Revision 0, October 7, 2002.

6. MIC-1000, *Management Integration and Controls (MIC) Standards/Requirements Identification Document (S/RID)*, Issue 9, 08/31/2001.

7. PX-RA-POA-02-20, *Readiness Assessment Plan-of-Action for the Restart of Transportation Safety Analysis Report Module Phase I Implementation*, Revision 0, September 11, 2002, Section 2.0 Description of Facility Being Restarted.

8. *Transportation SAR Module Phase I Implementation Plan*, Revision 3, October 11, 2002.

Evolutions/operations witnessed: None

Discussion of Results:

As reported by the Contractor Readiness Assessment (CRA) Team the issued Transition to Operations Plan (Revision 0) contained a number of deficiencies. Specifically:

1. The plan does not address publication of the Transportation TSR's and applicability matrix changes after approval by the BWXT General Manager.

2. The plan does not address how Technical Procedure F7-5001, *Administrative Control Specific Requirements for Zone 4 and Zone 12-South Nuclear and Nuclear Explosive Facilities*, and other documents will be changed to reflect requirements that are deleted upon publication of the new Transportation TSR pages, nor does it address the training of personnel on the removal of some requirements.

3. The plan does not address the changing of controls from AC Specific controls to Programmatic controls and the training of personnel who need to understand and implement these changes.

4. The plan does not address the needed actions for developing and issuing the above changes before declaring readiness to DOE.

These reported deficiencies were consolidated and correctly classified as CRA prestart Finding MS-1-1-1, *The Transition to Operations Plan for the Transportation SAR and TSR's does not adequately detail those activities necessary after the CRA and before the DOE RA to ensure that the TSR will be correctly implemented.* Corrective actions were promptly developed and implemented by cognizant BWXT organizational units to resolve these cited discrepancies. These corrective actions include developing and issuing revisions to the subject plan to address the reported discrepancies. These revisions were incorporated in Revision 1 to the Transition to Operations Plan dated November 8, 2002 and validated by the CRA Team. A detailed review of this issued plan and interviews with cognizant BWXT CRA personnel revealed that all of the cited discrepancies in CRA Prestart Finding MS-1-1-1 have been effectively resolved.

Pantex Master Authorization Agreement (MAA) ABC – 258600 is the vehicle by which the Transportation SAR, (AB-SAR-314343), and associated TSR's are imposed for implementation. During the Contractor Readiness Assessment (CRA) the MAA revision that incorporated appropriate changes addressing the Transportation SAR, was reviewed in Draft form and determined to be acceptable. This agreement has now been formally issued and validated by the CRA team. The current MAA now issued appropriately references the new Transportation SAR and recognizes the assessment of readiness up to Phase I, Group I as defined in the BWXT Transportation SAR Module Implementation Plan (Reference 10).

As recognized by the CRA team, new equipment, as addressed in Criteria 2 was not within the scope of the CRA for Phase I, Group I as defined in the BWXT Transportation SAR Module Implementation Plan. This is because no additional new equipment was needed for the implementation of the activities of this Phase and Group.

Criteria Met: X Yes _ No

Findings/Observations: None

Assessed by: R. L. Moore
Team Member

Approved by: David Rast
Team Member

READINESS REVIEW APPRAISAL FORM
FORM - 1

Objective Number:	Criteria Number:	Date of Review:
MT-1	1,2	November 12-22, 2002

Objective: Effective and complete preventive maintenance (PM), including any Surveillance Requirements (SRs) or In-Service Inspections (ISIs) for the systems, structures or components (SSCs) credited in the Transportation SAR and TSR's, has been implemented to ensure the operability of safety systems and safety-related utility systems.

Criteria:

1. The necessary attributes of SRs and ISIs, or both, are implemented into maintenance procedures to ensure that these SSCs are operable.

2. New SRs and ISIs have been baselined.

Method of Appraisal:

Interviews: None.

Reference:

1. "Transportation Safety Analysis Report Module", AB-SAR-314343, Proposed Change AB-01-0042.

2. "Technical Safety Requirements for Pantex Facilities", RPT-SAR-199801, Proposed Change AB-01-0042.

3. "Approval of Authorization Basis Change Proposal AB-02-0042, 'Transportation Safety Analysis Report Module (TSAR) Phase I and Associated Technical Safety Requirements, April 1, 2002.

Evolutions/operations witnessed: None.

Discussion of Results:

This criterion was evaluated to confirm that it had been properly excluded from review during the Contractor Readiness Assessment activities. This review confirms that this criteria is not applicable, as there are no engineering or design controls implemented in Group 1 of Phase I of the TSAR.

Conclusion:

This criterion is not applicable to the Administrative Controls being implemented during Phase I Group I.

Issue(s): None

Inspected by: _____ **Approved by:** _____
Team Member — Team Leader
Julian Biggers

READINESS REVIEW APPRAISAL FORM
FORM - 1

Objective Number:	Criteria Number:	Date of Review:
NES-1	All	November 12-22, 2002

Objective: Transportation activities are performed under the requirements of the Transportation SAR and TSR's.

Criteria:

1. Transportation of nuclear explosives, under the Transportation SAR and TSR's, comply with NES safety rules.

2. The configuration and condition of the nuclear explosive are known and remain unchanged during transportation operations.

3. Zone coverage requirements, if applicable, are satisfactorily specified in the transportation operating procedures, and followed by transportation workers.

4. There are no potential conflicts between NES safety rules and surety requirements, and the Transportation SAR and TSR's.

Method of Appraisal:

Interviews:

- Production Stores Supervisors
- Production Stores Personnel
- OASO NES Team Leader

Reference:

1. F7-5001, Issue R, *Administrative Controls Specific Requirements for Zone 4 and Zone 12-South Nuclear and Nuclear Explosive Facilities.*

2. 7-5650, Issue EH, *General Safety Requirements for Zone 4.*

3. 7-5638.1, Issue DH, *General Safety Requirements for Handling and Transporting Nuclear Explosives, Nuclear Components and NELAs.*

4. P7-5080, Issue T, *Safety Requirements-On Site Transportation of Chemical Explosives, Nuclear Explosives and Weapon Components*

Evolutions/operations witnessed:

Transportation operations were observed during the review period in Zone 4 and Zone 12. A Nuclear Explosive move from Zone 4 to Zone 12, 12-117 loading dock. The NE was transported from the dock to 12-104. Moves were observed between 12-104 and 12-117.

Discussion of Results:

Review disclosed no conflicts between Transportation SAR/TSR requirements and NES Safety Rules Zone Coverage requirements were known and maintained during transportation activities. The configuration of the Nuclear Explosive was known at receipt and remained unchanged through this process. Level of knowledge reviews confirmed training on SAR requirements. Transportation operations are covered under the above referenced documents, approved under the existing change control and review process.

Conclusion:

All Criteria met.

Inspected by: _____ Team Member
David Rast

Approved by: _____ Team Leader

READINESS REVIEW APPRAISAL FORM
FORM - 1

Objective Number: OP-1	Criteria Number: 1-4	Date of Review: November 12-22, 2002

Objective: The formality and discipline of operations is adequate to conduct work safety, and programs are in place to maintain this formality for transportation activities.

Criteria:

1. Transportation logs and other documents are properly maintained.

2. An operator aid program, if used, is established and maintained to ensure that operator aids are posted, they are current, and they are useful.

3. Pre-operational checks to verify the operability of SSCs are properly conducted and documented.

4. Operations are conducted in a formal manner that ensures compliance with applicable operating limits.

Method of Appraisal:
Interviews:

- Manufacturing and Production Stores B to include Walker/Spotters, NE Handlers and Forklift Drivers.
- Multiple transportation personnel
- Transportation Line Supervisors.
- Transportation Department Managers B Department 142 (Designee and acting).
- Security Police Officers (SPO)

Reference:

1. AB-SAR-314343, Proposed Change AB-01-0042, *Transportation Safety Analysis Report Module*
2. F7-5001, Issue R, Administrative Controls Specific Requirements for Zone 4 and Zone 12-South Nuclear and Nuclear Explosive Facilities.

3. 7-5650, Issue EH, General Safety Requirements for Zone 4.

4. 7-5638.1, Issue DH, General Safety Requirements for Handling and Transporting Nuclear Explosives, Nuclear Components and NELAs.

5. P7-5080, Issue T, Safety Requirements-On Site Transportation of Chemical Explosives, Nuclear Explosives and Weapon Components.

6. PX-1853A, Issue 2, Forklift Pre-operation Daily Checklist.

7. PX-1853B, Issue 4, Forklift Pre-operation Weekly Checklist.

8. PX-2567, Issue 11, Driver Vehicle Inspection Report (DVIR).

9. **PX-4109, Issue 3, *Weapon Run Checklist.***

10. PX-4422, Issue 1, System Check Documentation.

Evolutions/operations witnessed:

Pantex Plant transportation activities were observed during the review period in Zone 4 and Zone 12. These observations included a Transportation Department pre-shift briefing, pre-operational equipment checks (tractor- trailers, forklifts, and magazines), mixed type NE loading for on-site transport/convoy for receiving/offloading at the Bldg. 12-117 loading docks and Production Stores and Manufacturing Department ramp movements to destination bay/cell's. In addition, Transportation Department trailer loading of a NE's for off-site transport was also observed.

Discussion:

Collectively, the observed activities were satisfactory.

Pre-Shift Briefings: Interactive, specific assignments were made and included discussion of the work to be done. Pre-operational equipment checks were done on tractor-trailers (including pull testing), forklifts and magazines.

Zone 4-F, Magazine/trailer loading operations: Both magazine and trailer doors were secured in the open position, barricades were established around the magazine apron, magazine access control badging was used, tractor-trailers were chocked and a walker/spotter was utilized.

Inter-Zone move/Convoy operations: Transportation Department personnel led the convoy, security support included escort vehicles and additional units for convoy route roadblocks. The convoy appeared to remain well below the 20 mph speed limit requirement and traveled on an approved route.

Bldg 12-117 Loading Dock operations and Intra-zone movements: Personnel access and control of the loading dock and adjacent ramp area was formally controlled via access control badging and the use of chains/stanchion/postings. Production Stores personnel were stationed in the ramp to prevent casuals from traversing the area during the off-loading work. Walker/Spotters assisted forklift operators with off-loading and preparations for and accompanied the NE's during the ramp movements. Personnel in ramps were seen to stop and let the convoy pass - walker/spotters complied with applicable TSR requirements. Upon arrival at destination, turnover/custody of the units were appropriately made.

During random, on-the-spot interviews operators displayed a remarkable understanding of, and adequately complied with, the Transportation TSR requirements; However, the following anomalies were noted: A) Transportation Department operator did not know the TSR required that magazine doors had to be secured in the open position. He ensured the doors were secured in the open position, but did not know why. B) Building 12-117 loading dock access control badging was used but not well controlled. Two (2) separate instances were noted of workers leaving the area without returning their access control badging. Finally, a Production Stores walker/spotters responses to questions regarding NE prohibited areas (ramps and buildings) in the Zone 12S MAA were inconclusive. Transportation Department daily and weekly Pre-Operational Forklift Checklists were not properly turned-in per guidance on the checklists.

Conclusion:

All Criteria met.

Inspected by: _____ 12-8-02 **Approved by:** _____
Team Member Grady Rose — Team Leader

Inspected by: _____ **Approved by:** _____
Team Member Jody Pugh — Team Leader

READINESS REVIEW APPRAISAL FORM
FORM - 1

Objective Number: OP-2	Criteria Number: 1-3	Date of Review: November 12-22, 2002

Objective: There are adequate and correct procedures and safety limits for the transport of full-up nuclear explosives.

Criteria:

1. Procedures are provided for the operation of systems and equipment during normal and postulated abnormal and emergency conditions.

2. Procedures are approved, readily available, and managed as controlled documents.

3. Procedures are written in a manner such that they can be performed as written.

Method of Appraisal:

Interviews:

- Manufacturing and Production Stores B to include Walker/Spotters, NE Handlers and Forklift Drivers.
- Multiple transportation personnel.
- Transportation Line Supervisors.
- Transportation Department Managers B Department 142 (Designee and acting).
- Security Police Officers (SPO)

Reference:

1. AB-SAR-314343, Proposed Change AB-01-0042, *Transportation Safety Analysis Report Module.*

2. F7-5001, Issue R, Administrative Controls Specific Requirements for Zone 4 and Zone 12-South Nuclear and Nuclear Explosive Facilities.

3. 7-5650, Issue EH, General Safety Requirements for Zone 4.

4. 7-5638.1, Issue DH, General Safety Requirements for Handling and Transporting Nuclear Explosives, Nuclear Components and NELAs.

5. P7-5080, Issue T, Safety Requirements-On Site Transportation of Chemical Explosives, Nuclear Explosives and Weapon Components.
6. PX-1853A, Issue 2, Forklift Pre-operation Daily Checklist.

7. PX-1853B, Issue 4, Forklift Pre-operation Weekly Checklist.
8. PX-2567, Issue 11, Driver Vehicle Inspection Report (DVIR).

9. PX-4109, Issue 3, *Weapon Run Checklist.*

10. PX-4422, Issue 1, System Check Documentation.

Evolutions/operations witnessed: Pantex Plant transportation activities were observed during the review period in Zone 4 and Zone 12. These observations included a Transportation Department pre-shift briefing, pre-operational equipment checks (tractor- trailers, forklifts, and magazines), mixed type NE loading for on-site transport/convoy for receiving/offloading at the Bldg. 12-117 loading docks and Production Stores and Manufacturing Department ramp movements to destination bay/cell's. In addition, Transportation Department trailer loading of a NE's for off-site transport was also observed.

Discussion:

Collectively, the observed activities were satisfactory. In addition, documents reviewed were satisfactory, readily available and used by operating personnel.

Pre-Shift Briefings: Interactive, specific assignments were made and included discussion of the work to be done. Pre-operational equipment checks were done on tractor-trailers (including pull testing), forklifts and magazines.

Zone 4-F, Magazine/trailer loading operations: Both magazine and trailer doors were secured in the open position, barricades were established around the magazine apron, magazine access control badging was used, tractor-trailers were chocked and a walker/spotter was utilized.

Inter-Zone move/Convoy operations: Transportation Department personnel led the convoy, security support included escort vehicles and additional units for convoy route road-blocks. The convoy appeared to remain well below the 20 mph speed limit requirement and traveled on an approved route.

Bldg 12-117 Loading Dock operations and Intra-zone movements: Personnel access and control of the loading dock and adjacent ramp area was formally controlled via access control badging and the use of chains/stanchion/postings. Production Stores personnel were stationed in the ramp to prevent casuals from traversing the area during the off-loading work. Walker/Spotters assisted forklift operators with off-loading and preparations for and accompanied the NE's during the ramp movements. Personnel in ramps were seen to stop and let the convoy pass, walker/spotters complied with applicable TSR requirements. Upon arrival at destination, turnover/custody of the units were appropriately made.

During random, on-the-spot interviews, operators displayed a remarkable understanding of, and adequately complied with, the Transportation TSR requirements; However, the following, anomalies were noted: A) Transportation Department operator did not know the TSR required that magazine doors had to be secured in the open position. He ensured the doors were secured in the open position, but did not know why. B) Building 12-117 loading dock access control

badging was used but not well controlled. Two (2) separate instances of workers leaving the area without returning their access control badging. In addition, a Production Stores walker/spotters responses to questions regarding NE prohibited areas (ramps and buildings) in the Zone 12S MAA were inconclusive. Transportation Department daily and weekly Pre-Operational Forklift checklists were not properly turned-in per guidance on the checklists.

Conclusion:

All criteria have been met.

Inspected by: 12-12-03 **Approved by:**
Team Member Grady Rose — Team Leader

Inspected by: **Approved by:**
Team Member Jody Pugh — Team Leader

READINESS REVIEW APPRAISAL FORM
FORM - 1

Objective Number:	Criteria Number:	Date of Review:
SEO-1	1	November 12-22, 2002

Objective: The Transportation SAR and TSR's are implemented into approved documents and trained to security and plant shift superintendents.

Criteria:

Transportation SAR and TSR's requirements have been implemented into approved documents to ensure that transportation activities are performed within the approved authorization basis.

Method of Appraisal:

Interviews: None

Reference:

1. AB-SAR-314343, Proposed Change AB-01-0042, *Transportation Safety Analysis Report Module*

2. F7-5001, Issue R, *Administrative Controls Specific Requirements for Zone 4 and Zone 12-South Nuclear and Nuclear Explosive Facilities*

Evolutions/operations observed: None

Discussion: See READINESS REVIEW DEFICIENCY FORM – 2 for SED-1 Criteria 1

Conclusion:

The Criteria have not been met.

Inspected by: 12-12-02 **Approved by:**
Team Member Team Leader

Inspected by: **Approved by:**
Team Member Team Leader

READINESS REVIEW DEFICIENCY FORM
FORM - 2

Objective Number:	Criteria Number:	Date of Review:
SEO-1	1	November 12-22, 2002

Issue: The Requirements pertaining to the Specific and Programmatic TSR's in the Transportation SAR are not effectively implemented into the Facility Procedure *"Administrative Control Specific Requirements for Zone 4 and Zone 12-South Nuclear and Nuclear Explosive Facilities"*

Requirement:

1. DOE Order 5480.19, *Conduct of Operations Requirements for DOE Facilities, Chapter XVI, Operations Procedures (C) Guidelines (2) Procedure Content (b)* "Procedures should incorporate appropriate information from applicable source documents, such as the facility design documents, safety analysis documents, and vendor technical manuals." (e) "Procedures should be easily understood, and actions should be clearly stated."

2. RPT-SAR-199801, *Technical Safety Requirements, Revision 18, 5.3.3 page 5-7, Violation of a TSR* (3) "Failure to comply with an AC Specific Requirement is a Violation of a TSR."

3. RPT-SAR-199801, *Technical Safety Requirements, Revision 18,5.3.4.3 page 5-9, Response to an AC Specific Requirement Violation* (2) "Notify DOE of the violation in accordance with DOE O 232.1." and (3) "Prepare an Occurrence Report in accordance with DOE O 232.1."

4. RPT-SAR-199801, *Technical Safety Requirements, Revision 18,5.3.4.4 page 5-10, Response to an AC Programmatic Requirement Violation:* Individual deficiency within an AC Programmatic Requirement (1) "Notify DOE of the procedural violation in accordance with DOE O 232.1." (2) "Prepare an Off-Normal Occurrence Report in accordance with DOE O 232.1." If Program is determined to have had a systematic breakdown (1) "Notify DOE of the AC violation in accordance with DOE O 232.1." (2) "Prepare an Occurrence Report in accordance with DOE O 232.1."

Reference:

1. DOE Order 5480.19, *Conduct of Operations for DOE Facilities*, May 18, 1992

2. RPT-SAR-199801, *Technical Safety Requirements*, Revision 18, Sections 5.3.3, 5.3.4.3, and 5.3.4.4.

Discussion:
TSR's specific control requirements do not flow down into the Facility Procedure

F7-5001 *"Administrative Control Specific Requirements for Zone 4 and Zone 12-South Nuclear and Nuclear Explosive Facilities"*.

F7-5001 the Purpose states that Transportation TSR controls (both specific and programmatic) and their associated recovery actions in the event of non-compliance are also provided in this document.

1. There is no identification of what constitutes an immediately reportable TSR AC Specific Requirement violation in Procedure F7-5001 *Administrative Control Specific Requirements for Zone 4 and Zone 12-South Nuclear and Nuclear Explosive Facilities (U)*. The required response actions to an AC Specific Requirement per RPT-SAR-199801, Technical Safety Requirements can not be taken if the AC Specific Requirements are not identified.

2. The methodology to track AC Programmatic Control Violations per TSR section 5.3.4.4 (Response to an AC Programmatic Requirement Violation) is not given in Procedure F7-5001 *Safety Requirements Section*. Contrary to the requirements of RPT-SAR-199801, TSR section 5.3.4.4, there are no individual deficiency reporting requirements and program systematic breakdown reporting requirements reflected in the Safety Requirements Section of F7-5001.

Finding Designation:

Issues 1 & 2 above have been determined to be Category B findings.

Inspected by: _____ **Approved by:** _____
Team Member — Team Leader
Jody Pugh

Inspected by: _____ 12-12-02 **Approved by:** _____
Team Member — Team Leader
Grady Rose

READINESS REVIEW APPRAISAL FORM
FORM - 1

Objective Number:	Criteria Number:	Date of Review:
SEO-1	2-4	November 12-22, 2002

Objective: The Transportation SAR and TSR's are implemented into approved documents and trained to security and plant shift superintendents.

Criteria:

1. Security police officers (SPO's) and Plant Shift Superintendents (PSS's) have been adequately trained on the Transportation TSR, and are able to demonstrate compliance with these requirements.

2. Support equipment is available that are necessary to the performance of the security guards and plant shift superintendents. Training on this equipment and its use has been performed.

3. Management of nuclear explosive movement, in accordance with the Transportation SAR and TSR, has been established.

Method of Appraisal:

Interviews:

- Operations Center Plant Shift Superintendent (PSS) Line Supervisors
- Operations Center PSS's
- Operations Center Assistant PSS's
- Security Police Officers (SPO's)

Reference:

1. AB-SAR-314343, Proposed Change AB-01-0042, *Transportation Safety Analysis Report Module.*

2. F7-5001, Issue R, Administrative Controls Specific Requirements for Zone 4 and Zone 12-South Nuclear and Nuclear Explosive Facilities.

3. 7-5650, Issue EH, General Safety Requirements for Zone 4.

4. 7-5638.1, Issue DH, General Safety Requirements for Handling and Transporting Nuclear Explosives, Nuclear Components and NELAs.

5. P7-5080, Issue T, Safety Requirements-On Site Transportation of Chemical Explosives, Nuclear Explosives and Weapon Components.

6. PX-1853A, Issue 2, Forklift Pre-operation Daily Checklist.

7. PX-1853B, Issue 4, Forklift Pre-operation Weekly Checklist.

8. PX-2567, Issue 11, Driver Vehicle Inspection Report (DVIR).

9. PX-4109, Issue 3, *Weapon Run Checklist.*

10. PX-4422, Issue 1, System Check Documentation.

Evolutions/operations observed: Pantex Plant transportation activities were observed during the review period in Zone 4 and Zone 12. This included an NE on-site convoy for receiving/offloading at the Bldg. 12-117 loading docks as well as, Operations Center personnel (both PSS's and Assistant PSS's) actions supporting those activities.

Discussion:

Collectively, the observed activities were satisfactory.

Inter-Zone move/Convoy operations: Transportation Department personnel led the convoy, security support included escort vehicles and additional units for convoy route road-blocks. The convoy appeared to remain well below the 20 mph speed limit requirement and traveled on an approved route.

Operations Center/CRADS support: PSS's and Assistant PSS's coordinated both NE and HE moves so that the respective move windows did not overlap. Further, the Assistant PSS's tracked both preplanned and on-demand NE moves ensuring that location, facility loading limits, time restrictions and custody were maintained by operating personnel.

During random, on-the-spot interviews PSS's, Assistant PSS's and Security Police Officers displayed a remarkable understanding of the Transportation TSR requirements.

Conclusion:

Inspected by: _____ 11-12-02 **Approved by:** _____
Team Member Team Leader

Inspected by: _____ **Approved by:** _____
Team Member Team Leader

READINESS REVIEW APPRAISAL FORM
FORM - 1

Objective Number:	Criteria Number:	Date of Review:
TR-1	1-4	November 12-22, 2002

Objective: Level of knowledge of transportation workers and supervisors, and affected support personnel, is adequate to ensure compliance with the Transportation SAR and TSR's.

Criteria:

1. Transportation workers and supervisors demonstrate adequate knowledge of the Transportation SAR and TSR's based on evolutions witnessed and level of knowledge interviews.

2. Examinations have been given and are of the appropriate level of difficulty for assessing whether the examinee understands the Transportation SAR and TSR's, and how to comply with them.

3. Only personnel trained on the Transportation SAR and TSR's are permitted to perform transportation activities.

4. Changes to transportation activities to support implementation of the Transportation SAR and TSR's have been reflected in the transportation workers and supervisors' training and qualifications.

Method of Appraisal:

Interviews:

- Section Manager, Operations Center
- Plant Shift Supervisor (4)
- Acting Department Manager, D-0142
- Department Manager, D-0142 (Designee)
- Transportation Supervisor (2)
- Material Handler, D-0142 (2)
- Production Stores Supervisor
- Production Stores Personnel (2)
- Security Training Supervisor
- Transportation Training Coordinator

Reference::

1. Transportation Safety Analysis Report, AB-SAR-314343, AB-01-0042, 4/1/02.

2. Safety Requirements – On Site Transportation of Chemical Explosives, Nuclear Explosives and Weapon Components, P7-5080, Issue T, undated.

3. Final Report of the BWXT Pantex Transportation Safety Analysis Report Phase I Group I Implementation Readiness Assessment, Revision 0, 10/29/02.

4. General Safety Requirements for Handling and Transporting Nuclear Explosives, Nuclear Components, and NELAs, O&I Standard 7-5638.1, Issue DH, undated.

5. General Safety Requirements for Zone 4, O&I Standard 7-5650, Issue EH, undated.

6. Administrative Control Specific Requirements for Zone 4 and Zone 12-South Nuclear and Nuclear Explosive Facilities, F7-5001, Issue R, undated.

7. Electrical Storm and Severe Weather Precautionary Procedures, IOP-01091, Issue 001, undated.

8. PX-15B, Flexible Continuing Training, Transportation TSR Training – Phase I – Dept. 142, Course 370.03, undated.

9. PX-15B, Flexible Continuing Training, Transportation TSR Training – Phase I – Utilities, Course 370.04, 8/28/02.

10. PX-15B, Flexible Continuing Training, Transportation TSR Training – Phase I – Miscellaneous, Course 370.06, 8/28/02.

11. PX-15B, Flexible Continuing Training, Transportation TSR Training – Phase I – Security, Course 350.95, undated.

12. PX-15B, Flexible Continuing Training, Transportation TSR Training – OC, Course 350.96, 9/03/02.

13. Training Completion Report, PX-3864, Exams for Courses 370.03, 370.04, 370.06, and 350.96.

14. Training Completion Report, PX-3864, for Courses 350.95 and 350.97.

15. TRAC "Training Completion Reports" for Courses 370.03, 370.04, 370.06, 350.95, 350.96, and 350.97.

16. TRAC "Training and Qualification Code Assignment Reports" Reviewed for Flexible Continuing Training Courses 370.03, 370.04, 370.06, 350.95, 350.96, and 350.97.

17. Memorandum, W.T. Sanders to Shift Commanders, TSR Compliance, 11/19/02, listing personnel who had not completed Course # 350.97.

18. BWXT TSAR CRA Level of Knowledge Tests for Courses 370.03, 370.04, 370.06, 350.95, 350.96, and 350.97.

Evolutions/operations witnessed:

Move of NE from Loading Dock to a Bay

Discussion of Results:

Observations and level of knowledge interviews were conducted by RA Training and Operations team members of personnel in the Transportation, Manufacturing, and Security Organizations and in the Operations Center. Personnel proved knowledgeable of the TSR requirements applicable to their job functions and responsibilities, with the exception of TSR 4.3.3.8, as described in Issue TR-1-1. While some individuals missed questions related to other TSR's, TSR 4.3.3.8, which designates areas where NE must not be transported, was the only one that consistently drew incomplete and incorrect answers. Discussions with supervisors and other personnel indicated that they were knowledgeable of the TSR's and corrective actions as taught in the training courses, or as described in their procedures in the case of TSR 4.3.3.13 (Observation TR-1-1). Personnel were fully capable of performing their duties within the TSR's addressed in this readiness assessment.

Examinations were given at the end of Courses 370.03, 370.04, 370.06 and 350.96. Test questions from the examinations directly addressed the knowledge of the TSR requirements and actions, with the exception of the questions addressing TSR 4.3.3.8. Examination questions related to training on TSR 4.3.3.8 are addressed in Issue TR-1-1. The questions included multiple choice and true-false answers, and effectively tested personnel on the TSR controls addressed in each training course.

No examinations were given to security personnel taking Courses 350.95 and 350.97. Security personnel signed Forms PX-3864 for their courses indicating they had read and understood the TSR information applicable to their activities.

All personnel in D-0142, personnel associated with movement of NE in Manufacturing Division, personnel associated with natural gas transportation in Utilities, all Plant Shift Supervisors, and all security personnel were required to receive the training specific to their functions. At the time of this RA only one person in D-0142, two persons in manufacturing, and eight persons in security had not had the required training. Most of these persons are on either extended medical leave or military active duty. Only persons who have successfully completed the training are allowed be associated with the transportation of NE. Supervisors have been notified by the division training coordinators of the names of persons who have not completed the training. All personnel observed by the NNSA RA team in the movement of NE had completed the required training.

With the exception of security, only personnel identified as having duties associated with the transportation of NE have been trained. Within the security organization, it was determined that all personnel would receive the training, not just those personnel normally associate with providing security for transportation of NE. Training of security personnel focused on TSR's associated with changes in the actions taken during convoy operations.

For all other organizations affected by the TSAR, training needs were based on functions performed by personnel within each organization. This also determined which TSR's would be included in each course, and the depth to which that training would be provided. For example, Plant Shift Supervisors trained on all the TSR's, but to a lesser degree than personnel from Manufacturing and D-0142. They were also tested on a limited set of TSR's concerning activities they influenced through communications and tracking of weather information. Manufacturing personnel were trained on TSR's associated with transportation activities in Zone 12, while D-0142 personnel were trained on all transportation and immediate response activities.

Since completion of the BWXT TSAR RA, all weapon training instructors, with one exception, have been trained in the TSR requirements contained in Course 370.06.

Conclusion:

The Criteria for this objective have not been met.

Issue(s):

Category A Issue: Personnel were not able to identify all three locations where transportation of Nuclear Explosives (NEs) were prohibited.

Inspected by: _____ Team Member **Approved by:** _____ Team Leader

READINESS REVIEW DEFICIENCY FORM
FORM - 2

Objective Number:	Criteria Number:	Date of Review:
TSAR-TR-1-1	1, 2	November 12-22, 2002

Issue: Personnel were not able to identify all three locations where transportation of Nuclear Explosives (NEs) were prohibited.

Requirement: Procedures and training shall be implemented and maintained to prohibit the transportation of NEs in Ramps 12-R-79, 12-R-86, and in Building 12-42, and procedures that require NE handlers to be trained on this requirement.

Reference:

1. AB-SAR-314343, Transportation Program, Section 4.3.3.8.
2. PX-15B, Transportation TSR Training – Phase I - Department 142, Course # 370.03.
3. PX-15B, Transportation TSR Training – Phase I – Miscellaneous, Course # 370.06.
4. MIC-SRID, Issue Number 9, Criteria 1.4.2.b (STD-2770, Training; STD-2777, Personnel Selection,
5. Qualification, and Certification; and STD-4525, Safeguards Training Requirements)

Discussion:

During Level-of-Knowledge interviews with Department 142 and Manufacturing personnel, the majority of the personnel interviewed were unable to identify all three areas of the Zone 12 MAA where transport of NEs was prohibited. In addition, several personnel erroneously identified other areas as NE-prohibited (12-61, 12-44, 12-98, 12-89). The RA team members performing the evaluation of operations independently verified this issue during their Level-of-Knowledge interviews.

All the interviewed personnel had received training, either course 370.03 or 370.06. Personnel taking Course 370.06 were tested concerning the ramps associated with this TSR, but not the facility, while personnel attending Course 370.03 were not tested on this TSR at all. The tests performed as part of the level of knowledge evaluation during the BWXT TSAR RA evaluated instruction related to the ramps associated with this TSR, but again failed to address the facility. Since personnel were unable to identify all three locations called out in this TSR control, the possibility of a TSR violation is increased.

Finding Designation:

Category A Finding

Inspected by: _____ **Approved by:** _____

Team Member Team Leader

Julian Biggers

READINESS REVIEW DEFICIENCY FORM
FORM - 2

Objective Number:	Criteria Number:	Date of Review:
TSAR-TR-1	2	November 12-22, 2002

Issue: Recovery actions trained in Course Number 370.03, Objective 9 (NE Transport Tractor/Trailer Test Pull), do not accurately reflect the requirements in F7-5001 or the Transportation SAR.

Requirement: Procedures and training shall be implemented and maintained to require a positive verification that the NE transport tractor and the NE transport trailer are properly connected.

Reference:

1. AB-SAR-314343, Transportation Program, Section 4.3.3.13.
2. F7-5001, Administrative Control Specific Requirements for Zone 4 and Zone 12-South Nuclear and Nuclear Explosives Facilities, Section 2.8.23.
3. PX-15B, Transportation TSR Training – Phase I - Department 142, Course # 370.03.
4. MIC-SRID, Issue Number 9, Criteria 1.4.2.b (STD-2770, Training; STD-2777, Personnel Selection, Qualification, and Certification; and STD-4525, Safeguards Training Requirements)

Discussion:

The training provided on recovery actions for TSR 4.3.3.13, in Course #370.03, requires the operator to "slowly and carefully" move the trailer to an approved area where a test pull can be conducted. The movement of a tractor/trailer combination following discovery that a test pull was not conducted prior to movement of a NE is not discussed in the SAR or in F7-5001. F7-5001 requires that the tractor/trailer be brought to a safe and stable configuration, and then a test pull be conducted before continuing movement. All personnel interviewed on this TSR requirement stated that they would stop, bring the tractor/trailer to a safe and stable configuration, and perform a test pull. This accurately reflects the procedural requirements. None of the personnel interviewed stated that they would move the tractor/trailer further before they conducted a test pull.

Finding Designation:

Observation:

Inspected by: _____ **Approved by:** _____

Team Member
Julian Biggers

Team Leader