



Department of Energy
National Nuclear Security Administration
Washington, DC 20585

2003 . 0001477

August 29, 2003

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DNF SAFETY BOARD

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

Dear Mr. Chairman:

The purpose of this letter is to report on the status of commitment 4.2.2 in the Implementation Plan for Defense Nuclear Facility Safety Board (DNFSB) Recommendation 2002-2, *U.S. Department of Energy Plan to Address and Resolve Weapons Laboratory Support of Defense Nuclear Complex.*

The attached Interagency Engineering Procedure, Processing Changes to Pantex Technical Procedures, EP401104, was revised to ensure a single point-of-contact (POC) is named for each weapon system, a POC is identified for those issues that span multiple weapon systems, and weapons POC roles and responsibilities are updated.

If you have any further questions, please call me at (202) 586-1730.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Schoenbauer".

Martin J. Schoenbauer
Director
Office of Nuclear Weapons Stockpile

Enclosure

cc:
M. Whitaker, DR-1, HQ

INTERAGENCY ENGINEERING PROCEDURE

PROCESSING CHANGES TO PANTEX TECHNICAL PROCEDURES

CHANGE HISTORY - EP401104

<u>EP401104 / ISSUE</u>	<u>RELEASE/CHANGE NO.</u>	<u>DATE</u>
A	IER981214SA	11/03/98
B	FCO 20020553SA	5/13/02
C	FCO20031822SA	8/28/03

CAGE CODE 14213	DWG. NO. EP401104	ISSUE C	DATE AUG 28, 2003	PAGE NO. 1 OF 7
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1 GENERAL

1.1 Purpose

The purpose of this Engineering Procedure (EP) is to establish the design agency points-of-contact for each weapon system; for those issues that span multiple weapon systems; and for review and concurrence of Pantex (PX) Technical Procedures involving weapon and weapon component processing, and subsequent Technical Procedure Change Requests (TPCRs) to ensure timely communication and notification.

1.2 Objectives

The objectives of this EP are to:

- a. Ensure a single point of contact is named for each weapon system.
- b. Ensure a single point of contact is named for those issues that span multiple weapon systems (e.g. multiple program testers).
- c. Ensure that PX Technical Procedures, and subsequent changes to these procedures, affecting nuclear explosive safety, personnel safety, use control, reliability, or quality are changed and implemented only after the necessary review and concurrence by the design agency's single points of contact.
- d. Establish the method to delineate insignificant changes.
- e. Establish the method to delineate the types of changes that do not require concurrence from the design agency as prescribed in the Responsibility Assignment Matrix (RAM).

1.3 Definitions

Single Point of Contact (SPOC) for a Weapon System or for Issues Spanning Multiple Weapon Systems – With respect to each design agency, the SPOC is the designated senior, technically competent individual—fully knowledgeable in internal weapons laboratory programs and procedures—who arbitrates and resolves issues pertaining to a particular weapon system or issues common to multiple weapon systems.

Lead Reviewing Organization (LRO) – With respect to each design agency, the LRO is the organization assigned the lead responsibility to review and concur with proposed changes to a PX Technical Procedure and is the PX contractor's primary point of contact. The LRO works with the Reviewing Organizations (ROs) at their site to resolve issues and concerns associated with the change proposal. More than one LRO may be assigned to the same or different sections of a given Technical Procedure. See Table 1 for guidance on assigning the LRO representative(s).

Reviewing Organization (RO) – With respect to the design agencies, the RO is an organization identified as having an interest in a given PX Technical Procedure. The RO supports the LRO at their site to resolve issues and concerns associated with any TPCR. See Table 1 for guidance on assigning the RO representative(s).

Responsibility Assignment Matrix (RAM) - The document, prepared by the design agencies, that identifies the LRO(s) and RO(s) for the review and concurrence of changes to PX Technical Procedures. The RAM shall also include a listing of the types of changes that do not require concurrence from the design agencies. The PX contractor uses the RAM to identify contacts for coordinating changes to Technical Procedures and to facilitate prompt reporting of discrepancies or abnormalities encountered during the operations.

Pantex Technical Procedure - The formal work instructions used at the Pantex Plant to control operations involving weapon components and assemblies. PX Technical Procedures include Interactive Electronic Procedures (IEPs), Nuclear Explosive Operating Procedures (NEOPs), Operating Procedures (OPs), Operating and Inspection (O&I) Standards, Nuclear Explosive Engineering Procedures (NEEPs), and Engineering Instructions (EIs).

Technical Procedure Change Request (TPCR) – A document prepared by the PX contractor that formally documents proposed changes to a TP. The TPCR is distributed internally at PX and to the LROs and ROs, in accordance with the RAM, for concurrence.

Insignificant Change - A revision to a TP that does not materially affect the process or safety of the operation as unanimously agreed by the document custodian, safety representative and operations manager at the Pantex Plant.

Change that does not Require Design Agency Concurrence – A type of change to a TP that can not directly or indirectly affect nuclear explosive safety, personnel safety, use control, reliability, or quality. Design agency concurrence of these types of changes is not required. The RAM shall include a listing of these types of changes.

Demonstration Review - An observation of a proposed operation. The observed operation shall emulate the production environment at a level of detail that will allow the observers to confidently recommend for or against the change.

Standing Management Team (SMT) – The SMT plays a primary role in managing the activities necessary to enhance the safety of nuclear explosive operations at the Pantex Plant. The SMT includes experienced line/program managers from NNSA, LLNL, LANL, SNL, and the Pantex Plant contractor. The SMT is charged with applying integrated safety methodology for all Pantex Plant nuclear explosive operations according to the Integrated Weapon Activity Plan within the policy set forth by Headquarters, NA-11 and 12, Defense Programs. The SMT directs progress towards that methodology by establishing clear expectations for each project and ensures those expectations are met through participation in general and milestone meetings. The SMT also recommends to NA-11 and NA-12 priorities for R&D projects at the national laboratories to improve the safety or efficiency of nuclear explosive operations at the Pantex Plant.

2 REQUIREMENTS

2.1 Single Point of Contact (SPOC)

Each design agency will ensure that a Single Point of Contact (SPOC) is clearly identified for each weapon system at each Laboratory and for those issues that span multiple weapons programs. The SPOC for a Weapon System is typically the Manager (or his/her designated representative) of the laboratory's organization responsible for the weapon system. The SPOC for issues crossing multiple weapon systems is the laboratory's Standing Management Team (SMT) member (or his/her designated representative).

Each SPOC will arbitrate and resolve issues pertaining to his or her particular weapon system or overarching issue. This requires that each SPOC be a senior, technically competent individual, fully knowledgeable in internal weapons laboratory programs and procedures. The roles and responsibilities of each SPOC include: ownership for adjudication and resolution of issues on his or her respective weapon system; technical and programmatic responsibility for that weapon; allocation and prioritization of resources; and technical direction for the weapon program. A periodic, updated listing of all SPOCs is disseminated to the end users in the defense nuclear weapons complex by way of an Information Engineering Release (IER). The SMT, comprised of NNSA, contractors, and Laboratory personnel, meets regularly to discuss weapons related issues. This periodic meeting enables any SPOC to surface particular or crosscutting issues to be resolved promptly by NNSA and Laboratory management.

2.2 Responsibility Assignment Matrix (RAM)

The following information reflects what is required when the design agency is establishing a Responsibility Assignment Matrix (RAM). See Section 3.2 for the associated control procedure.

- a. A RAM shall establish the design agency points-of-contact (LRO and RO representatives and their alternates) for review and concurrence of TPs and subsequent TPCRs. The listed representatives shall have their telephone number included as a minimum. One RAM may cover several TPs.
- b. The RAM shall include a listing of the types of changes that do not require design agency concurrence.

- c. The RAM shall also include the acceptable time period for the LRO to receive TPCRs containing only these types of changes that were approved without concurrence from the design agency.

2.3 Technical Procedure Changes

The following information reflects what is required when changing a released TP. See Section 3.3 for the associated control process.

- a. The PX contractor shall distribute the draft TPCR to each LRO as required in the RAM.
- b. As required per the RAM, each design agency provides documented concurrence to PX through its LRO.
- c. The LROs or ROs may require a demonstration review prior to concurrence.
- d. For TPCRs that have been determined to be insignificant and only contain changes that do not require concurrence from the design agency, the LROs and ROs are not required to review and concur but must receive the released TPCR from the PX contractor within a specified time period in accordance with the RAM. The LROs and ROs must then ensure the changes were incorporated properly.

3 CONTROL PROCEDURE

3.1 Establishing SPOCs

LANL, LLNL, and SNL each issue an Information Engineering Release [IER] to designate a SPOC for each weapon system. These IERs are listed in the Reference section at the end of this EP. The SPOC for those issues that span multiple weapons programs is the SMT Member (or his or her designated representative) at each Laboratory. The IERs list specific names and all contact information for each SPOC and for other POCs that deal with specific issues for each weapon system. These IERs will be distributed to the end users in the defense nuclear weapons complex.

3.2 Establishing RAM

Table 1 is used to determine the LRO and RO representatives for TPs. It is the LRO's responsibility to record and maintain the RAM. The RAM should be recorded and maintained in a configuration-controlled document (e.g., an Information Engineering Release [IER], specification, drawing, etc.). The RAM shall be distributed to the LROs, ROs, and PX contractor. For a given TP or type of operation (WR, JTA, etc.), the RAM shall list the names and telephone numbers of the LROs, ROs and their alternates. A listing of the types of changes that do not require concurrence from the design agency shall be included. Format of the RAM is left to the discretion of the author. The LROs and ROs may vary with weapon configuration and type. See TBP-404 for guidance on preparing IERs.

Table 1 - Responsibility Assignment Matrix Guide

Nuclear Weapon Operation	Design Agency Organizations & Assignments			
	LLNL/DTED LANL/ESA-WE	SNL Systems Depts.	SNL Use Control Depts.	SNL Stockpile Evaluation Depts.
Build of WR Assembly	LRO	LRO		
Build of Physics Package	LRO			
D&I of WR Assy for Repair Action	LRO	LRO		RO
D&I of Physics Package	LRO			RO
Disassembly of WR Assembly	LRO	LRO		
Disassembly of Physics Package	LRO			
D&I for SLT/SFT	LRO	RO		LRO
Build of JTA	LRO	LRO		RO
Postmortem of JTA	LRO	RO		LRO
Build of Laboratory Test Beds	LRO	RO		LRO
PAL Operations		RO	LRO	RO

3.3 Changing Technical Procedures

The following steps require a released RAM. If the PX contractor determination has been made that the TPCR is insignificant, see Section 3.3.1. If the PX contractor determination has been made that the TPCR is significant, see Section 3.3.2.

3.3.1 TPCR Determined to be Insignificant Change

1. The PX contractor prepares draft TPCR.
2. The PX contractor then distributes the TPCR internally. The PX contractor reviewers verify the TPCR is an insignificant change.
 - a. If all PX contractor reviewers verify the TPCR is an insignificant change and the PX process engineer verifies the TPCR contains no changes that would require design agency concurrence in accordance with the RAM, design agency (LRO and ROs) concurrence is not required. The PX contractor must provide a copy of the approved TPCR to each LRO within a specified time period in accordance with the RAM. Go to Step 5.
 - b. If all PX contractor reviewers verify the TPCR is an insignificant change but the TPCR contains changes that require design agency concurrence in accordance with the RAM, The PX contractor distributes the TPCR to each LRO for review in accordance with the RAM. Each LRO reviews only the changes of the TPCR that require concurrence from the design agency, as delineated on the TPCR by the PX contractor, and if the determination of the significance of the change was correct.
3. When the LRO(s) concurs with the TPCR, each LRO provides concurrence to the PX

contractor and their site ROs. At their discretion, each LRO may consult with their site RO(s). If there is a disagreement with the TPCR, the LRO collates comments from their site, resolves the conflicts and sends comments to the PX contractor. The PX contractor then addresses the comments, revises the TPCR and returns the TPCR to each LRO for review. If the LRO or RO(s) from any site believe the TPCR should be handled as a significant change, the LRO notifies the PX contractor and the TPCR is then processed per Section 3.3.2.

4. The PX contractor then implements the TPCR.
5. When the TP is revised, the PX contractor provides the new release to the LROs and ROs at each site within five working days.

3.3.2 TPCR Determined to be Significant Change

1. The PX contractor prepares draft TPCR.
2. The PX contractor then distributes the TPCR internally and to each LRO for review in accordance with the RAM.
3. Each LRO sends a copy of the TPCR to their site RO(s) for review.
4. When the LRO and site RO(s) concur with the TPCR, the LRO provides concurrence to the PX contractor and their site RO(s). If there is a disagreement with the TPCR, the LRO collates comments from their site, resolves the conflicts and sends the comments to the PX contractor. The PX contractor then addresses the comments, revises the TPCR and returns the TPCR to each LRO for review.
5. Upon concurrence from the LRO(s), the PX contractor then implements the TPCR.
6. When the TP is revised, the PX contractor provides the new release to the LROs and ROs at each site within five working days.

4. REFERENCES

1. TBP-404, Engineering Authorization System
2. Lawrence Livermore National Laboratory (LLNL) SPOCs: IER 20021243LL
3. Los Alamos National Laboratory (LANL) SPOCs: IER 20020370LA
4. Sandia National Laboratories (SNL) SPOCs: IER 20031408SA