



Department of Energy  
National Nuclear Security Administration  
Washington, DC 20585



MAR 06 2012

The Honorable Peter S. Winokur  
Chairman  
Defense Nuclear Facilities Safety Board  
625 Indiana Avenue, NW, Suite 700  
Washington, DC 20004

Dear Mr. Chairman:

This is in response to your November 7, 2011 letter, which documented concerns that the processes for tracking and closure of nuclear explosive safety evaluation findings and senior technical advisor comments do not adequately meet the intent of Department of Energy Manual 452.2-2, *Nuclear Explosive Safety Evaluation Processes*. The enclosed report addresses the concerns expressed in your cover letter as well as the attached staff issue report.

Should you have any questions regarding this matter, please contact me at (202) 586-2179 or have your staff contact Mr. Donald Brunell at (505) 845-5338.

Sincerely,

DONALD L. COOK  
Deputy Administrator  
for Defense Programs

Enclosure

cc: M. Campagnone, HS-1.1  
D. Govan, HS-1.1  
D. Nichols, NA-SH-1  
P. Calbos, NA-10  
R. Lewis, NA-10.2  
W. Goodrum, NA-12  
D. Brunell, NA-12  
D. Baca, NA-121  
J. McConnell, NA-17  
W. White, NA-171  
S. Erhart, PXSO

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**Report to the  
Defense Nuclear Facilities Safety Board  
on the  
Tracking and Closure Processes for  
Nuclear Explosive Safety Evaluation Findings  
and  
Senior Technical Advisor Comments**

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The Board Staff held discussions with representatives from NNSA, the Nuclear Explosive Safety Division (NESD), Pantex Site Office (PXSO), and B&W Pantex regarding the criteria used to categorize a nuclear explosive safety (NES) issue as a finding or deliberation topic, the tracking and closure process for NES findings, and the roles and responsibilities of Senior Technical Advisors (STA) along with how their comments are managed.

NNSA continues to emphasize management's commitment to and recognition of the NES evaluation process and the vital role that it plays in ensuring the safety of nuclear explosive operations. NNSA management continues to be a proponent of the NES-evaluation process.

### **NES Finding Criteria**

The Board letter takes issue with what appears to be different NES finding categorization processes used by NESD, PXSO, and by NA-12 and the use of NES developed criteria for appropriate categorization of NES findings. We agree there is a need for clarification of the NES finding categorization process.

A major objective of the finding criteria NESD developed was to reduce instances of disagreement among Nuclear Explosive Safety Study Group (NESSG) members and between the NESSG and line management. A significant side benefit is better written findings. After some initial growing pains, these objectives have been met.

PXSO and NA-12 have agreed to consider the finding criteria in developing and documenting their positions on NESSG findings. Because findings are now written to reflect the criteria, reviewers and decision makers objectively consider the same criteria. However, management decisions are appropriately influenced by factors beyond what the NESSG considers. As noted in DOE M 452.2-2 *Nuclear Explosive Safety Evaluations*, legitimate reasons for disagreement with NESSG conclusions include disagreement with the facts on which the NESSG finding was based, or an argument that the NESSG conclusion does not logically follow from the factual basis. Such arguments are best offered during NESSG deliberations. There are many opportunities for the Project Team to question the factual basis and rationale before a NESSG report is completed. It is also possible for a line manager to determine that the benefit of corrective action is not commensurate with the resources required. If PXSO or NA-12 adopts any such position, we agree they should document their rationale. We will revise DOE M 452.2-2 to include the categorization criteria currently in NESD-03 *Criteria for Categorizing Issues from Nuclear Explosive Safety Evaluations* and to make it clear that all parties first consider the criteria.

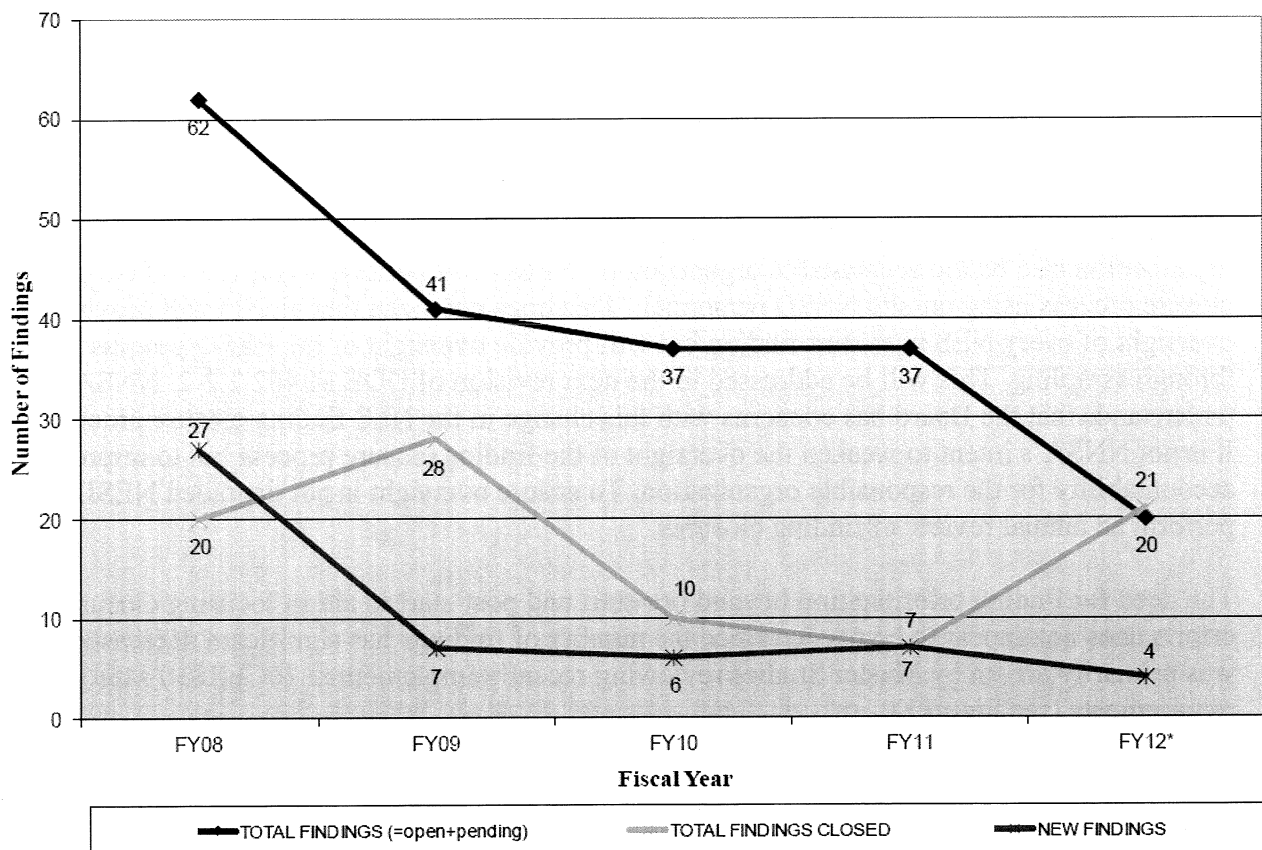
It is important to note that since NESSGs began using the finding criteria and improving the quality of their write-ups there has been very little controversy on categorization of issues. Recent findings have been written in a manner that reflects the criteria and PXSO and NA-12 have been accepting them as written.

## Processing NES Findings

The Board letter takes issue with several areas of processing NES findings. These concerns cover length of time post-start findings are open; NESD involvement in development of post-start corrective actions; linking common findings across NES studies and master studies; providing corrective action plans to the NA-12 approval authority; oversight of the corrective action closure process; lack of NESSG presentation to the M&O contractor; and, prioritization of findings for closure.

While previously it was true that some NES post-start findings were open for greater than one hundred months, significant progress has been made in lowering those numbers. A major contributor for this backlog was the development and implementation of 10CFR830 nuclear safety regulation compliant safety bases and the subsequent need to perform NES Master Studies to review these changes. Figure 1 shows the trend in numbers of post-start findings open. The trend and numbers show we are effectively managing the post-start corrective action backlog.

### **Pantex Post-Start Finding Status**



\*AS OF JANUARY 31, 2012

**Figure 1**

We agree that NESD needs to more actively participate in the corrective action development process with the goal being to agree on a clear path forward that will resolve the issue. Having a

good corrective action plan agreed to by all parties is the best starting point. If more emphasis is placed up front there should be fewer opportunities for disagreement in the end. This will be addressed in the next revision of DOE M 452.2-2 with the requirement of NESSG Chair engagement a requirement.

We also agree that common findings across program studies and master studies should be grouped so that proper emphasis is placed on fixes for all affected systems and to reduce unnecessary redundancy in paperwork, tracking, closure, etc. This too will be addressed in the next revision of DOE M 452.2-2. If the NESSG decides not to group with an existing finding, when one exists, then a reason must be given in the NESS report.

We agree that NA-12 has not been receiving copies of post start corrective action plans as required by DOE M 452.2-2. Although the responsibility for review and approval of post-start corrective action plans resides with PXSO, NA-12 and other affected organizations should be aware of these corrective action plans and their impact on safety and operations. Future distribution will be made to appropriate parties.

The responsibility for managing closure of post-start findings belongs to PXSO. NA-17 provides oversight of the NESD responsibilities only and does not extend beyond that. They do not have the resources to accomplish oversight of NES corrective action closure at Pantex. NESD currently provides oversight as directed in DOE M 452.2-2 by providing advice which is interpreted by most parties to be approval for closure. NNSA will revise DOE M 452.2-2 to delete the advice requirement to make it clear that closure authority belongs to PXSO. This is consistent with the principles of integrated safety management for having the responsible organization also be the accountable organization. NESD will perform oversight of PXSO's closure process using on-site NESD personnel. This does not mean that NESD will provide oversight of every NES post-start finding but will provide oversight of the PXSO process through sampling. This will be addressed in the next revision of DOE M 452.2-2. NNSA understands that the Board has concerns with this change in the NES finding closure process. It is not NNSA's intent to weaken the oversight of the finding closure process but to improve accountability for the responsible organization. To ensure oversight is not degraded NESD will perform an annual review of finding closures.

The need for finding prioritization beyond pre-start and post-start to aid in focusing closure efforts does not appear to be needed since the number of findings has significant decreased and was primarily driven by Master Studies reviewing recently implemented 10CFR830 safety basis requirements (see Figure1).

### **STA Comments**

The Board letter states concerns with NNSA not properly handling STA comments as required by DOE M 452.2-2 and that these comments should be handled more like NES findings. The Board letter indicates they would like to see a level of formality in handling STA comments similar to that used for NES findings.

The STAs fulfill a valuable role in improving the NESSG and are an excellent source of advice for improvement beyond the scope of the NESSGs they sit on. Although they are not officially voting members of the NESSG they are in every other aspect full members of the study groups. DOE M 452.2-2 will be revised to make sure it is clear that the STAs are full non-voting members of the NESSG and can write minority opinions. The STAs also have the ability to write differing professional opinions under DOE O 442.2 *Differing Professional Opinions for Technical Issues involving Environment, Safety, and Health*.

There is a need to improve the STA comment process to make it more useful. The STA comments will no longer be included in the NES study report but will be issued separately as a letter directly to NA-12. This is being done to maintain emphasis on the NES aspects of the study. The primary focus of their input is to make sure a valid NES study is conducted and that the NESSG fully utilizes the STAs wealth of technical experience. NNSA's intent is to ensure that STA input associated with the study is found in the study. Input not directly related to the study is appropriate for the STA comment letter. This in no way devalues the usefulness of the STA comments.

STA comment review, acceptance, feedback, tracking, and closure processes should be improved to enhance the value of the STA input. NESD is developing a formal tracking database for the comments. An NA-12 senior technical advisor will review the submitted comments and discuss them with NA-12. More timely feedback will be provided on those comments which are not accepted for follow-up. This will help the STAs to either rewrite the comment or better understand why it was not accepted. NESD will develop comment writing guidance for STAs. Those comments that are accepted will be assigned for action and will then be tracked until actions are complete and closed in the tracking system. STAs will be informed of what actions are being taken on those comments accepted. The Board letter pointed out that STA comments prior to 2009 were not tracked. NESD will review pre-2009 STA comments to determine if any are still useful. Those comments that are still useful will be assigned and tracked in the database.