



The Deputy Secretary of Energy

Washington, DC 20585

September 11, 2013

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

Dear Mr. Chairman:

The Defense Nuclear Facility Safety Board (Board) issued a letter on July 15, 2013, regarding the Implementation Plan (IP) for Recommendation 2010-2, *Pulse Jet Mixing at the Waste Treatment and Immobilization Plant*. The letter requested a report within 60 days providing the schedule for completing a revised Recommendation 2010-2 IP and a briefing within 90 days describing in detail the design verification philosophy that the Department of Energy (DOE) will use to demonstrate reliable operation of the pulse jet mixers. The letter indicated that sufficient information has not been provided to allow the Board to fully understand DOE's revised design verification philosophy or to establish a firm date for completing the revised IP. In addition, a request was made to designate the assigned responsible manager for this Recommendation.

We have revised the technical approach to resolve the Board's safety concerns associated with control and operation of the Waste Treatment and Immobilization Plant (WTP) Pulse Jet Mixed (PJM) vessels containing solids. The revised technical approach addresses concerns associated with the potential accumulation of solids due to inadequate mixing which may lead to inadvertent criticality, episodic flammable gas releases and the ability to control PJMs to mitigate overblows as identified in the Recommendation. Pursuant to the revised technical approach, nuclear safety issues (i.e. criticality and flammable gas release) will be resolved by analysis and testing, if needed, and PJM control issues will be addressed by testing. These concerns are projected to be resolved during Fiscal Years 2014 and 2015.

DOE expects to complete its revision of the 2010-2 IP by February 28, 2014. The revised 2010-2 IP will:

- Identify specific activities to resolve issues associated with the potential for inadvertent criticality and episodic hydrogen gas release from accumulated solids in PJM mixed vessels in WTP;
- Identify specific activities to resolve the issues on PJM control;
- Address tank farm waste feed delivery requirements and methods dependent upon our finalized approach to provide the capability to stage feed, characterize and assure feed to the WTP complies with waste acceptance criteria; and



- Provide resource-loaded schedules for control and monitoring of work performance to be completed by the tank farm and WTP Contractors.

During preparation of the revised 2010-2 IP, previous commitments will be reconciled with the revised technical approach. The revised 2010-2 IP strategy is predicated on DOE's plan to deliver tank waste to the WTP that is consistent with the WTP feed acceptance design basis. The 2010-2 IP revision will provide clear plans for an initial set of tank waste feed compositions and will commit to provide additional information regarding successive batches of waste feed as it becomes available.

Detailed planning is being prepared for updating approaches to accomplish safety issue resolution. Detailed planning to support the revised IP will include schedule and resource requirements. The revised IP will include commitments that represent significant, specific work products. In addition, a separate document will be prepared to reconcile previous implementation plan commitments.

The current Recommendation 2010-2 IP revision schedule is as follows:

Completion of Detailed Technical Planning	November 22, 2013
Initial IP Draft Completed	November 22, 2013
Discuss Draft IP with Board Staff	December 2013
Finalize IP and Obtain ORP Manager Approval	January 20, 2014
Secretarial IP Approval	February 28, 2014

A briefing on the revised 2010-02 IP is being scheduled for October 2013 where additional detail on the schedule will be provided.

Finally, Mr. Kevin Smith has been designated as the responsible manager for this Recommendation. If you have any questions, please contact me or Mr. Kevin Smith, Manager, Office of River Protection, at (509) 372-2315.

Sincerely yours,



Daniel B. Poneman