



The Secretary of Energy
Washington, D.C. 20585

September 14, 2012

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

Dear Mr. Chairman:

Enclosed is an Addendum which adds additional deliverables and milestones to the Department of Energy's (DOE's) Implementation Plan (IP) for Defense Nuclear Facilities Safety Board (Board) Recommendation 2011-1, *Safety Culture at the Waste Treatment and Immobilization Plant*. The Addendum was developed based on information and experience to date during execution of the IP. The Addendum supplements the IP; it does not replace the IP.

On December 27, 2011, the Department sent the Board a letter transmitting DOE's IP for the Recommendation. The letter stated that "In the course of executing the IP, information may be developed, for example, from independent reviews or self-assessments, which lead the Department to take additional actions."

On March 2, 2012, the Board sent a letter to the Department acknowledging receipt of DOE's IP. The letter requested that DOE update the IP using information gained from DOE's Office of Health, Safety and Security *Independent Oversight Assessment of Nuclear Safety Culture and Management of Nuclear Safety Concerns at the Hanford Site Waste Treatment and Immobilization Plant*, January 2012, which is the deliverable from completed Action 1-2 of the IP.

The Department views nuclear safety and assuring a robust safety culture as essential to the success of the Waste Treatment and Immobilization Plant and all other projects across the DOE complex.

If you have any further questions, please feel free to contact Mr. David Huizenga, Senior Advisor for Environmental Management, at (202) 586-7709.

Sincerely,

A handwritten signature in black ink that reads "Steven Chu". The signature is written in a cursive, flowing style.

Steven Chu

Enclosure



U. S. Department of Energy

**Implementation Plan Addendum
for
Defense Nuclear Facilities Safety Board
Recommendation 2011-1**

*Safety Culture at the Waste Treatment and
Immobilization Plant*



Washington, DC 20585

August 2012

1.0 PURPOSE

The purpose of this Addendum is to add additional deliverables and milestones to the Implementation Plan (IP) which specifies Department of Energy (DOE) actions for addressing Defense Nuclear Facilities Safety Board (Board or DNFSB) Recommendation 2011-1, *Safety Culture at the Waste Treatment and Immobilization Plant*. The Addendum supplements the IP; it does not replace the IP.

2.0 BACKGROUND

2.1 December 27, 2011, DOE Letter transmitting the IP for Recommendation 2011-1

On December 27, 2011, the Secretary of Energy sent the Board a letter transmitting the Department of Energy's (DOE's) Implementation Plan for Recommendation 2011-1. The letter stated that "In the course of executing the IP, information may be developed, for example, from independent reviews or self-assessments, which lead the Department to take additional actions."

The Department began taking actions described in the IP even before the IP was formally issued, and continues to execute the IP.

2.2 March 2, 2012, DNFSB Letter regarding the IP for Recommendation 2011-1

On March 2, 2012, the DNFSB sent a letter to the Secretary of Energy acknowledging receipt of DOE's December 27, 2011 letter enclosing DOE's IP for Recommendation 2011-1 and requesting that DOE update the IP using information gained from DOE's Office of Health, Safety and Security (HSS) *Independent Oversight Assessment of Nuclear Safety Culture and Management of Nuclear Safety Concerns at the Hanford Site Waste Treatment and Immobilization Plant*, January 2012 (*HSS WTP Safety Culture 2012 Report*), which is the deliverable from completed Action 1-2 of the IP.

2.3 March 22, 2012, and May 22, 2012, Board public hearing and meeting regarding the status of actions related to DOE's IP for Recommendation 2011-1

On March 22, 2012, and May 22, 2012, during session II of the Board's public hearing and meeting, the Board heard testimony regarding the status of actions related to DOE's IP for Recommendation 2011-1, including results of the *HSS WTP Safety Culture 2012 Report*. The testimony included a statement, responses to questions and discussion with the Board by the Deputy Secretary, who is the DOE Responsible Manager for Recommendation 2011-1.

3.0 IMPLEMENTATION PLAN ADDENDUM DEVELOPMENT

DOE has completed a number of important actions in accordance with the IP. The deliverable from Action 1-2 of the IP is the *HSS WTP Safety Culture 2012 Report*, which is an independent assessment of safety culture and managing safety concerns at the WTP, and was transmitted to the Board on February 28, 2012.

In accordance with the IP, and in response to the IISS WTP Safety Culture 2012 Report, the DOE Office of River Protection (ORP) developed an action plan for safety culture improvements (transmitted to the Board as the first deliverable for Action 1-8 of the IP). The ORP plan was created to initiate needed improvements in the ORP safety culture. ORP senior management chartered a Safety Culture Integrated Project Team, staffed with employees from a cross section of the organization, to analyze the *HSS WTP Safety Culture 2012 Report*. The team's efforts produced nine near-term improvement actions that can be accomplished and measured within one year, and 15 continuing improvement actions - many of which will start before the end of this calendar year. This plan will be a living document, updated as improvement actions are completed and as employee feedback drives refinement and/or development of additional actions.

As directed by DOE in correspondence previously provided to the Board (as the deliverable for Action 1-4 of the IP), the WTP contractor has developed and submitted to DOE an action plan to address the contractor-related findings in the *HSS WTP Safety Culture 2012 Report*. The WTP contractor's action plan was provided to the Board in a letter dated May 21, 2012.

In developing this addendum to the IP, the DOE Response Team reviewed the *HSS WTP Safety Culture 2012 Report* and the safety culture improvement action plans mentioned above, and also considered the insights developed at the Board's public hearing and meeting. The *HSS WTP Safety Culture 2012 Report* provided insights regarding factors affecting the safety culture at WTP, notably including problems with the contractor and ORP nuclear safety issues management of the nuclear safety construct. As used in the *HSS WTP Safety Culture 2012 Report*, the "nuclear safety construct" refers to the spectrum of nuclear safety requirements and processes, including design processes and safety basis processes, that have the ultimate goal of ensuring a safe design, DOE approval of the safety basis, and DOE authorization to operate.

4.0 ADDITIONAL DELIVERABLES AND MILESTONES

DOE's review of the above presented information, including the *HSS WTP Safety Culture 2012 Report*, led the Department to conclude that clarifying actions regarding existing commitments in the IP were warranted.

4.1 Management of the safety culture improvement action plans

The safety culture improvement action plans contain many specific actions intended to address the issues and recommendations in the *HSS WTP Safety Culture 2012 Report*.

Ongoing management of these action plans will be important to ensure that actions are effectively implemented, and coordinated, and barriers to change or accomplishment receive timely management attention. Thus, DOE ORP senior management will implement systematic oversight and monitoring of the execution of the contractor's safety culture improvement action plan. DOE ORP senior management will meet periodically (initially monthly, DOE will evaluate the required periodicity over time) with the contractor management to formally review the contractor's progress in executing the action plan and results achieved, and identify any areas needing coordination with DOE. DOE HQ will conduct oversight of these periodic meetings. DOE will inform the Board staff of the schedule for these meetings.

DOE HQ senior management will also implement systematic oversight and monitoring of the execution of DOE ORP's safety culture improvement action plan. DOE HQ senior management will meet periodically (initially monthly, DOE HQ will evaluate the required periodicity over time) with DOE ORP senior management to formally review DOE ORP's progress in executing the action plan and results achieved, and identify any areas needing coordination with or support from DOE HQ. DOE will inform the Board staff of the schedule for these meetings.

DOE HQ will include information gleaned from these meetings for periodic briefings to the Board on the progress of executing the IP, in executing the safety culture improvement action plans, and results achieved. Activities related to the management of the safety culture improvement plans are summarized in new Actions 1-4A and 1-8A.

4.2 Oversight of improvements to the Nuclear Safety Construct

DOE ORP is implementing its oversight of the contractor's safety culture improvement plan, which includes oversight of actions related to improvements in the nuclear safety construct. Oversight activities include evaluation of the adequacy of contractor procedures as well as their implementation. DOE ORP will perform formal surveillances of the contractor's response and corrective action effectiveness in resolving safety culture issues identified in the *HSS WTP Safety Culture 2012 Report*.

DOE ORP will also assess the contractor's processes and capabilities to deliver, review, and obtain approval of the Documented Safety Analyses for the WTP project. DOE has implemented a Safety Basis Review Team (SBRT) led by DOE ORP, and including resources from both DOE HQ and the EM Chief of Nuclear Safety office. The SBRT plays an important role assisting the ORP line organization in reviewing the contractor's procedures and processes for safety basis development in parallel with its review of the safety basis work products themselves (created in accordance with those procedures and processes).

SBRT insights will be combined with the insights developed through implementing the ORP oversight process to evaluate the effectiveness of the contractor's actions to improve the nuclear safety construct. The activity related to the oversight of improvements to the Nuclear Safety Construct is summarized in new Action 1-4B.

Deliverables/Milestones

Action 1-4A: DOE ORP senior management will meet periodically (initially about monthly, DOE will evaluate the required periodicity over time) with the contractor management to formally review the contractor's progress in executing the safety culture improvement action plan and results achieved, and identify any areas needing coordination with DOE.

Deliverable: A copy of the IP progress briefing to the Board.
Expected Completion Date of first briefing: October 2012
Lead: EM

Action 1-4B: DOE oversight of improvements to the nuclear safety construct at the WTP.

Deliverable: A copy of the IP progress briefing to the Board.
Expected Completion Date of first briefing: October 2012
Lead: EM

Action 1-8A: EM senior management will meet periodically (initially about monthly, EM will evaluate the required periodicity over time) with DOE ORP senior management to formally review ORP's progress in executing the safety culture improvement action plan and results achieved, and identify any areas needing coordination with or support from DOE HQ.

Deliverable: A copy of the IP progress briefing to the Board.
Expected Completion Date of first briefing: October 2012
Lead: EM

DOE will make any necessary adjustments to ORP and DOE-HQ oversight approaches based on experience over time. This experience will also provide input to the evaluation that ORP and DOE-HQ perform to develop the review for Action 1-9 of the IP, which is a validation and effectiveness review of ORP and contractor actions to improve safety culture management. As part of Action 1-9, DOE will determine the timing and necessity for continued briefings to the Board on the subject of this addendum.

REFERENCES

The Secretary's letter to the Board, dated December 27, 2011, transmitting the Department of Energy's (DOE's) Implementation Plan for Recommendation 2011-1

Board letter to the Secretary, dated March 2, 2012, acknowledging receipt of DOE's December 27, 2011 letter enclosing DOE's IP for Recommendation 2011-1

The Board's public hearing and meeting of March 22, 2012, and May 22, 2012

HSS Independent Oversight Assessment of Nuclear Safety Culture and Management of Nuclear Safety Concerns at the Hanford Site Waste Treatment and Immobilization Plant, January 2012