



**The Secretary of Energy**  
Washington, DC 20585

January 7, 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 Department of Energy (DOE) acknowledges receipt of Defense Nuclear Facilities Safety Board (Board) Recommendation 2012-2, *Hanford Tank Farms Flammable Gas Safety Strategy*, issued on September 28, 2012, published in the Federal Register on October 12, 2012, and accepts the Recommendation.

The Board acknowledged in its Recommendation that some improvements had been made to the specific administrative controls used for flammable gas monitoring, but noted that more work was needed to make the ventilation system a credited safety control. DOE agrees. In developing an Implementation Plan (IP), DOE will take the pragmatic and graded approach detailed below to address the sub recommendations that will significantly improve the robustness of flammable gas controls in the near term. DOE is confident this is the most expeditious approach to implement a more robust safety control for Double Shell Tank (DST) ventilation monitoring consistent with the intent of Recommendation 2012-2.

DOE's approach to addressing sub recommendations 1 and 2 will be divided into the following 3 phases:

- Phase 1 will be to complete implementing the DOE-approved Documented Safety Analysis by January 2013. This will include supplementing the flammable gas monitoring control with a new control that will measure ventilation flow through each tank on a periodic basis. This Documented Safety Analysis will establish priorities for DST primary tank ventilation system maintenance, commensurate with the importance of maintaining active ventilation on these tanks.
- Phase 2 will be to install initial safety-significant instrumentation for real-time monitoring of the ventilation exhaust flow from each DST that will not involve confined-space, radiological pit entry for data collection as is currently required. At this point, a robust safety-significant engineered control will be in place to provide exact flow measurement through each tank in real-time.
- Phase 3 will be to refine the tank flow real-time monitoring to make the monitoring data available at remote locations.



Remaining actions associated with sub recommendations 3 through 5 to reduce the potential hazards posed by gas release events will also be identified in the IP and will address:

- Restoring and upgrading existing installed non-safety-related equipment being used to fulfill safety functions at the Hanford Tank Farms to the appropriate safety classification.
- Implementing compensatory measures in the event of DST ventilation systems become unavailable.
- Evaluating the means to reduce flammable gases retained in the DST waste.

DOE is committed to the safe operation of its nuclear facilities consistent with the principles of Integrated Safety Management and the Department's nuclear safety requirements. DOE values the Board's input on how the Department can improve its activities. We look forward to working with the Board and its staff on preparing DOE's IP for Recommendation 2012-2. I have assigned the Manager, Office of River Protection, to be the Department's responsible manager for this Recommendation. He can be reached at (509) 376-8830.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Steven Chu". The signature is written in a cursive, flowing style.

Steven Chu