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DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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July 16, 2010



The Honorable Thomas P. D'Agostino
 Administrator
 National Nuclear Security Administration
 U. S. Department of Energy
 1000 Independence Avenue, SW
 Washington, DC 20585-0701

The Honorable Inés R. Triay
 Assistant Secretary for Environmental
 Management
 U. S. Department of Energy
 1000 Independence Avenue, SW
 Washington, DC 20585-0113

Dear Mr. D'Agostino and Dr. Triay:

The Defense Nuclear Facilities Safety Board is concerned that a policy implemented at the Savannah River Site may cause a serious degradation in the safety posture of its defense nuclear facilities. This issue concerns an unacceptable deviation from the requirements of DOE's nuclear safety management rule, 10 Code of Federal Regulations Part 830, *Nuclear Safety Management* (Part 830).

In letters dated July 15, 2008 and January 12, 2009, the Board informed the National Nuclear Security Administration (NNSA) that the Consolidated Hazard Analysis (CHA) for the Waste Solidification Building (WSB) at the Savannah River Site had not been incorporated into the facility's safety basis. While the CHA for the WSB identified and compiled all of the hazard controls required to protect the public, the workers, and the environment, the safety basis for this facility only included safety-class and safety-significant controls. In response to the Board's letters, NNSA corrected this problem for the Waste Solidification Building only. No changes were made, however, to the Savannah River Site *Facility Safety Document Manual*, which continues to characterize the CHA as a "Safety Basis Supporting Document" that is not considered part of the safety basis of a defense nuclear facility.

The practical effect of this characterization is that only a *subset* of identified hazard controls is included in the documented safety analysis for a facility or operation. This subset usually consists of controls involving safety-class and safety-significant structures, systems and components. Other defense-in-depth controls or controls that provide significant worker protection may not be included in the documented safety analysis, and are subject to either change or deletion in the CHA by the contractor. Consequently, the safety posture for facilities

and operations is subject to steady (and largely non-transparent) degradation as hazard controls are altered or eliminated by the contractor without federal review and approval.

In the Board's view, the requirements of Part 830 on this point are clear: Section 830.3 defines safety basis as "the documented safety analysis and hazard controls that provide reasonable assurance that a DOE nuclear facility can be operated safely." The hazard controls which contribute to this reasonable assurance should be an integral part of the safety basis, not just part of a reference document.

Pursuant to 42 U.S.C. § 2286b(d), the Board requests a report and a briefing within 90 days of receipt of this letter detailing corrective actions to bring the Savannah River Site's procedures into compliance with the requirements of Part 830. The report and briefing should also address whether other sites in DOE's defense nuclear complex have adopted similar non-compliant policies.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter S. Winokur". The signature is fluid and cursive, with a large initial "P" and "W".

Peter S. Winokur, Ph.D.
Chairman

c: Mr. Glenn S. Podonsky
Mr. Jack R. Craig
Mr. Douglas J. Dearolph
Mrs. Mari-Jo Campagnone