



Department of Energy
National Nuclear Security Administration
Washington, DC 20585



January 30, 2008

The Honorable A. J. Eggenberger
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, N.W., Suite 700
Washington, D.C. 20004-2901

Dear Mr. Chairman:

This letter transmits the National Nuclear Security Administration's (NNSA) deliverables required to fulfill commitments 5.1.2 and 5.1.4 of the Department's Implementation Plan responding to Board Recommendation 2007-1, *Safety-Related In Situ Nondestructive Assay of Radioactive Materials*. Specifically the two commitments are listed below.

Commitment 5.1.2: Identify NNSA defense nuclear facilities for which a criticality safety program is required (per DOE O 420.1B) and relies upon *in situ* NDA.

Commitment 5.1.4: Prioritize NNSA defense nuclear facilities based upon criticality accident risk for those facilities identified in Commitment 5.1.2.

NNSA received responses from all its sites that have, or are in the process of having, approved Criticality Safety Programs as required by DOE Order 420.1B. Of these, only the Criticality Safety Program at the Y-12 Plant has any reliance upon *in situ* nondestructive assay (NDA) for criticality control. This satisfies Commitment 5.1.2 to identify NNSA sites for which a criticality safety program is required and that also relies upon *in situ* NDA.

The Y-12 Site Office (YSO) prioritized Y-12 facilities in terms of criticality accident risk. YSO described the basis for establishing criticality accident risk in their submittal (enclosed). The Y-12 facility criticality risk ranking from highest risk to lowest risk is: Building 9212 and Building 9215 followed by Buildings 9206, 9204-2E, 9720-5, 9204-4, and 9995. Buildings 9212 and 9215 have approximately 2,100 of the total of about 2300 NDA measurement locations at Y-12, and are the two highest risk facilities that have a dependence upon *in situ* NDA for criticality control. A single *in situ* NDA program, the Uranium Holdup Survey Program (UHSP), covers all Y-12 facilities. This satisfies Commitment 5.1.4 to prioritize NNSA defense nuclear facilities based upon criticality accident risk for those facilities identified in Commitment 5.1.2.



The response memos from the individual NNSA sites are enclosed for your information. If you have any questions or need further assistance, please contact me, or Jerry McKamy at (301) 903-8031.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Smolen', followed by a small flourish or mark.

Robert L. Smolen
Deputy Administrator
for Defense Programs

Enclosures

cc: M. Thompson, NA-17
M. Schoenbauer, NA-10
R. Smolen, NA-10
W. Ostendorff, NA-2
J. McConnell, NA-2.1
R. Lagdon, US