



## Department of Energy

Washington, DC 20585

May 2, 2011

The Honorable Peter S. Winokur  
Chairman  
Defense Nuclear Facilities Safety Board  
625 Indiana Avenue, NW, Suite 700  
Washington, DC 20004-2901

Dear Chairman Winokur:

This letter is to provide an update to the Defense Nuclear Facilities Safety Board (Board) on two quality assurance related activities within the Office of Environmental Management (EM): 1) prevention and detection of Suspect/Counterfeit Items (S/CI) involving electronic components in EM nuclear facilities; and 2) flow-down of quality requirements to contractors and subcontractors. Both topics have been the source of recent discussions between the Board and EM.

The EM Office of Standards and Quality Assurance has been reviewing the practices for control of S/CI in the EM complex, with particular emphasis on electronic components used in safety class (SC) and safety significant (SS) applications. The initial round of evaluations has focused on EM's major construction projects. On-site evaluations have been performed at the Salt Waste Processing Facility (SWPF) at the Savannah River Site (SRS) and the Waste Treatment and Immobilization Plant (WTP) at Hanford as detailed below.

An initial evaluation at the SWPF was performed on October 26-28, 2010. At the time of the evaluation, the SWPF was finalizing the planning for procurement of the SS portion of the Digital Control Systems (DCS) for the facility. The evaluation team focused on the controls that the SWPF construction contractor planned to apply to this procurement. Based on the initial evaluation of the system of proposed controls in place at SWPF and review of industry best practices, EM issued a memorandum dated January 11, 2011, to all EM Field Elements regarding control of S/CI electronics components. This memorandum included a series of recommendations to enhance the prevention, identification, and control of S/CI electronics. To foster communication on the subject of S/CI electronics, the results of the initial SWPF S/CI electronics evaluation and the content of the S/CI best practices memorandum were a topic of discussion with the EM Field Elements and major EM contractors during the EM Quality Assurance Corporate Board meeting in Oak Ridge on February 16, 2011.

On February 23-24, 2011, followup evaluations of S/CI electronics controls were performed at SWPF. The evaluation team noted that the construction contractor intended to implement the recommendations of the January 11, 2011, memorandum in the upcoming procurement of the SS DCS. The construction contractor, with observers



from the Department of Energy (DOE) Office of Health, Safety and Security (HSS) and DOE SRS, performed an initial qualification audit of the DCS supplier. The results of this audit indicate that the supplier has an excellent quality assurance (QA) program, including processes for prevention, identification, and control of S/CI electronics.

On March 8-10, 2011, the prime contractor and EM conducted a joint assessment of the system of controls applied to S/CI electronics at WTP. Similar to the SWPF, the WTP is in the planning stages for the procurement of the SS DCS. The assessment team concluded that WTP also plans to use the best practices identified in the January 11, 2011, memorandum for the procurement of this system.

As the procurements of the SS digital control systems proceed, EM plans to monitor the procurement and acceptance process to ensure that both SWPF and WTP implement their plans related to the prevention, identification, and control of S/CI electronics. Control of S/CI electronics will also be assessed during upcoming Construction Project Reviews (CPR) for both facilities. For example, a CPR was recently held at the SWPF from March 21-24, 2011, where S/CI electronics was again addressed. Given the current rigor that both the SWPF and WTP plan to implement prior to procurement of SS DCS, there is now reasonable assurance that S/CI electronics will be detected and removed from service prior to installation.

In addition to monitoring the major SS electronic procurements at the SWPF and the WTP, EM plans to conduct assessments of processes for prevention, identification, and control of S/CI electronics at a sample of operating nuclear facilities. These assessments should occur within the next few months. EM will also continue to include reviews of S/CI controls, including S/CI electronics, in its ongoing assessments and oversight of other construction and operating projects. EM also intends to work with the Office of Nuclear Safety within HSS on the effort to enhance the QA function throughout the DOE, and specifically provide a central lead with respect to suspect/counterfeit parts.

In regards to the second issue, EM provided a response on September 2, 2010, to your May 5, 2010, letter regarding flow-down of quality requirements. In the EM response, we committed to review the results of flow-down evaluations in: 1) phase II QA program implementation reviews; 2) annual QA Declarations; and 3) recent site office quality assessments. This commitment was recently discussed and follow-on actions agreed upon at the February 2011 EM QA Corporate Board meeting. For the remainder of this fiscal year, EM plans to use the results of this review to further evaluate specific sites where potential issues may exist. We will continue to work closely with your staff to provide any necessary information and relay any findings or issues of interest that may result from the continued oversight.

If you have any further questions, or would like copies of the assessment reports and Lines of Inquiry used for the assessments described above, please contact me or Mr. Kenneth G. Picha, Jr., Acting Deputy Assistant Secretary for the Office of Safety and Security Program, at (202) 586-5151.

Sincerely,

A handwritten signature in black ink that reads "Inés R. Triay". The signature is written in a cursive style with a large, stylized initial "I".

Inés R. Triay  
Assistant Secretary for  
Environmental Management

cc: S. Horton, DNFSB  
C. Lagdon, S-3  
M. Campagnone, HS-1.1