

Department of Energy
Savannah River Operations Office
P.O. Box A
Aiken, South Carolina 29802

MAY 16 2007

Ms. Karen Patterson, Chair
Savannah River Site Citizens Advisory Board
1103 Conger Dr.
Aiken, South Carolina 29803

Dear Ms. Patterson:

SUBJECT: Citizens Advisory Board (CAB) Recommendation Number 245 – Liquid Waste Systems Approach (Your Letter, 3/29/07)

Thank you for your recommendation titled *Liquid Waste Systems Approach*. The two parts of recommendation 245 essentially asked the Department of Energy (DOE) to provide methodical, disciplined liquid radioactive waste system analyses which support Salt Waste Processing Facility (SWPF) decisions and explain how those analyses would be applied to Waste Disposition Project decisions. My integrated response to the recommendation is provided below:

1. **By May 22, 2007, provide the Savannah River Site (SRS) CAB with quantitative systems-approach analyses for the liquid radioactive waste system that support the SWPF design decisions.**
2. **By May 22, 2007, explain to the SRS CAB the methods used to evaluate the liquid radioactive waste system and present all potential impacts on cost, schedule, and safety and any proposed mitigation strategies, including any "lessons learned" from previous risk informed decision analyses.**

DOE is committed to reducing risk in the liquid radioactive waste system by removing waste from those tanks as quickly as possible. This is accomplished by a systems engineering process that supports project management by clearly defining mission need, managing system functions and requirements, identifying and managing risk, establishing bases for risk-informed decisions and verifying that projects meet DOE and customer needs. The project management products which result from this systems approach include the *High Level Waste System Plan*, the *Disposition Processing Plan*, and the *Radioactive Liquid Tank Waste Stabilization and Disposition Risk Management Plan*. These documents represent tools which can be brought to bear on Waste Disposition Project planning, issues of risk, cost-benefit and systems analyses. They are developed as an iterative process of planning, risk analysis, and development of risk mitigation strategies.

In your letter, the CAB identified a concern that a delay in the start-up of the Salt Waste Processing Facility (SWPF) would delay removal of waste from existing underground storage tanks and increase overall seismic risk. While a delay for SWPF start-up might increase the duration during which a seismic accident at the tank farms could pose a risk to workers and the public, the analyzed risks associated with such an event do not increase with time.

The CAB also recognized SWPF must be designed, constructed and operated to provide reasonable assurance for the safety of workers, the public, and the environment. In practice, DOE assures safe nuclear facility design through compliance with established DOE Directives and nuclear industry Codes and Standards. During 2006, DOE placed additional emphasis on ensuring safety is fully integrated into the early phases of nuclear

MAY 16 2007

Patterson

2

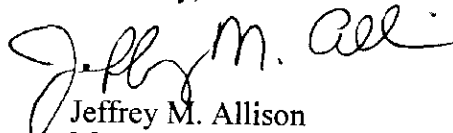
facility design. The DOE Office of Management (MA) issued revised Directives containing requirements associated with project management activities and DOE Headquarters has drafted implementation guidance for these revised Directives. On July 18, 2006, the DOE Office of Environmental Management (EM) issued guidance for interim use on planned EM nuclear facilities and major modifications to existing EM nuclear facilities. DOE has concluded critical project decisions, such as considering the need to impose new policy or new technical requirements, should consider all appropriate risk and cost-benefit factors.

However, decisions related to compliance with specified project standards would not typically be considered a critical project decision. For example, resolution of recent SWPF technical design issues raised by both DOE and the Defense Nuclear Facilities Safety Board were not considered critical project decisions as they represented areas where additional action was necessary to ensure compliance with seismic design requirements. In such cases it would not be appropriate to develop another systematic, risk-based evaluation to guide actions that ensure compliance with established nuclear design requirements.

By May, 22, 2007, DOE will provide the CAB with a discussion of the iterative process used to develop methodical, disciplined system evaluations. The discussion will also address application of the results to recent Waste Disposition Project decisions, such as the December 26, 2006, change to SWPF seismic requirements.

If you have any questions, please contact me or have your staff contact Tony Polk at (803) 208-6483.

Sincerely,



Jeffrey M. Allison
Manager

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