Department of Energy
National Nuclear Security Administration
Washington, DC 20585

November 9, 2010

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

Dear Mr. Chairman:

In an August 25, 2010, letter to you, Dr. Donald L. Cook, National Nuclear Security Administration (NNSA) Deputy Administrator for Defense Programs, identified key attributes NNSA will consider in, and clear preferences to guide, the selection of safety class structures, systems, and components (SSC) per the Implementation Plan for Recommendation 2009-2, *Los Alamos National Laboratory Plutonium Facility Seismic Safety*. The letter also emphasized that NNSA would be open to the Board and its staff in developing and applying the decision logic and criteria for evaluating and selecting safety class SSCs to prevent or mitigate seismically-induced events. One of the key benefits of this open, professional exchange is to ensure that all necessary information and analysis is developed and included in our decision-making process.

Following discussions with your staff, I want to elaborate on the process and criteria we are using to evaluate control strategies to prevent or mitigate seismically-induced events. The main criteria for the potential alternatives are the effectiveness of the solution, the practicality of the solution, and the impact of the solution on non-safety goals. The following criteria and sub-criteria are under consideration, and will be refined as necessary depending on the proposed alternatives and input from stakeholders:

1. Effectiveness of the Solution
    - Ability to meet commitments, expectations, and requirements
        - Environment, safety, and health
            - Prevention or mitigation of the dose to maximally exposed offsite individual
            - Prevention or mitigation of the dose to co-located workers
        - legal agreements
        - other commitments

- Technical viability and experience with control
  - technical maturity
  - reliability / availability
  - operability
- Robustness
  - preference for passive SSCs that prevent accidents
  - efficacy for a broad set of accidents

2. Practicality of the solution
   - Ease of implementation
   - Feasibility
     - constructability
     - experience to procure and design
     - design complexity
   - Stakeholder sensitivity

3. Impacts of the Solution
   - Cost
     - total cost
     - contingencies associated with control
     - funding profile
     - maintenance
   - Schedules
     - length of time for design and procurement
     - installation
     - budget schedule
       - Line item
       - Expense-funded project
   - Operations
     - on-going operations
     - maintenance
     - installation and potential worker exposure
   - Programs
   - Safeguards and security

In support of Deliverable 5.4.5 (project execution plan for SSC upgrades) of the Implementation Plan, NNSA will provide an Alternatives Analysis to the Board sufficiently prior to selecting the preferred alternative to allow time for NNSA and the Board to discuss the proposed actions and address any Board suggestions or comments. This Alternatives Analysis will document (1) the upgrade options evaluated, (2) the criteria these options were evaluated against, (3) the results of evaluating each option against the criteria, (4) NNSA's preferred upgrade alternative, and (5) the basis for selecting the preferred alternative.

If you have any questions, please contact me at (202) 586-4379.

Sincerely,

JAMES J. MCCONNELL
Assistant Deputy Administrator
for Nuclear Safety, Nuclear
Operations, and Governance Reform
Office of Defense Programs

cc: M. Campagnone, HS-1.1
K. Smith, LASO