



Department of Energy
National Nuclear Security Administration
Washington, DC 20585



May 18, 2007

MEMORANDUM FOR MANAGER, LIVERMORE SITE OFFICE
ACTING MANAGER, LOS ALAMOS SITE OFFICE
MANAGER, NEVADA SITE OFFICE
ACTING MANAGER, PANTEX SITE OFFICE
MANAGER, SANDIA SITE OFFICE
MANAGER, SAVANNAH RIVER SITE OFFICE
MANAGER, Y-12 SITE OFFICE

FROM:

THOMAS P. D'AGOSTINO 
DEPUTY ADMINISTRATOR
FOR DEFENSE PROGRAMS

SUBJECT:

Defense Nuclear Facilities Safety Board (DNFSB)
Recommendation 2004-2, *Active Confinement Systems*,
Implementation Plan (IP) Deliverable Concerning Proper Use of
the 25 rem Evaluation Guideline (EG) at National Nuclear
Security Administration Facilities

This memorandum requests information required to prepare Deliverable 8.9.1 of the Recommendation 2004-2 IP. The deliverable is a report of the results of the review of site procedures and safety basis mechanisms for using the 25 rem EG. The report is due following completion of the pilot and high-priority facility-specific ventilation system evaluations performed under Deliverable 8.6.3. These evaluations are scheduled to be completed in June 2007. Background information and the specific information being requested, and associated due date, are provided below.

The DNFSB is concerned that the 25 rem site boundary exposure EG is not only being used for classification of safety controls as described in Appendix A, *Evaluation Guideline*, of Department of Energy (DOE) Standard 3009, *Preparation Guide for U.S. Department of Energy Nonreactor Nuclear Facility Safety Analysis Reports*, but is being used as a design acceptance criterion for confinement system performance, or as an allowable public dose. The DNFSB concerns over misusing the EG are documented in Recommendation 2004-2 (December 7, 2004, letter from John T. Conway to Secretary Abraham), the 2004-2 IP (July 12, 2006, letter from Secretary Bodman to A.J. Eggenberger), and in DNFSB/TECH-34, *Confinement of Radioactive Materials at Defense Nuclear Facilities*, dated October 2004. These documents are also available from the Departmental Representative's website.



Appendix A to DOE Standard 3009 provides the following guidance concerning use of the 25 rem EG:

- Unmitigated releases should be compared against the EG to determine whether they challenge the EG, rather than exceed it, for the purpose of determining whether the need for Safety Class (SC) systems, structures, or components (SSCs) exists. Challenges to the EG indicate that the potential level of hazard in a specific facility warrants SC SSC designation. The SC designation is intended to focus a higher level of attention and requirements on this select subset of controls intended for public protection.
- The value of 25 rem Total Effective Dose Equivalent is not to be used as a hard pass/fail level because consequence calculations are highly assumption-driven and uncertain.
- The EG is not to be treated as a design acceptance criterion, an acceptable public exposure, or as a justification for not having to provide defense-in-depth safety measures.

Therefore, we are asking you to perform a review of site office and contractor mechanisms or procedures for using the 25 rem offsite dose EG and application to approved safety bases at your site to verify that, consistent with Appendix A, it is only being used for classification of safety controls, and not for designing or operating defense nuclear facilities, or as an allowable dose to the public. Your response should clearly describe any instances where mechanisms or procedures are found deficient, and actions that will be taken to correct the deficiencies.

Please provide the results of your review to Rick Kendall, NA-17 by June 29, 2007. Please contact Rick by phone at (301) 903-3102 or by e-mail at Rick.Kendall@nnsa.doe.gov if you have any questions concerning this request.