

**Department of Energy**  
Germantown, MD 20874-1290

March 31, 1998

Dr. W. Cunningham  
Defense Nuclear Facilities Safety Board  
625 Indiana Avenue, N.W.  
Suite 700  
Washington, D.C. 20004

Dear Dr. Cunningham:

During our meeting on March 18, 1998, several issues were discussed concerning the Department's policy on radiological sabotage. The purpose of this letter is to provide the Board with the current status of efforts underway to clarify this policy in terms of threat and consequences.

Over the past few months, a coordinated effort among the Office of Safeguards and Security (NN-51), Program Security Office, EM-62, and the Office of the Associate Deputy Assistant Secretary for Technical and Environmental Support, DP-45, has been made in order to refine the current policy on radiological sabotage. This team effort has focused on determining how to best define the consequences of a malevolent act resulting in radiological dispersal that could affect the public and our workers.

Our efforts to date have focused on establishing lethal dose thresholds (LDT) to the most susceptible human organs to replace the current system of using 50-year committed effective dose equivalent (CEDE) to calculate radiological sabotage consequence values to the public and workers as assessed at the site boundary. The products that are currently envisioned in this process of revising radiological sabotage policy are: the creation of a draft policy that will be fully coordinated with Department of Energy (DOE) field elements and all programs; standard reference tables for ease of screening; and a Guidance Document for implementation, together with a Technical Basis Document. The Office of Safeguards and Security has the responsibility for policy development and will address Field and program concerns through comment resolution and a workshop.

We have enlisted the assistance of Dr. Keith Eckerman, of Oak Ridge National Laboratory, Chairman of the Task Group chartered by the International Commission on Radiological Protection (ICRP), to establish dose conversion factors that reflect the acute radiation dose delivered within any 24 hour period and its effect on bone marrow, gastrointestinal lining and the lungs. We believe that this approach is more appropriate than the criteria used for siting reactors which deals with the CEDE at the site boundary. We are currently developing inventory screening tables based upon the LDTs and hope to have them available



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within one month. This table will be incorporated in an overall draft policy revision that NN-51 will coordinate with DOE field and program elements. We expect that this revised policy will provide a method for implementing a logical and effective radiological protection program at all DOE facilities.

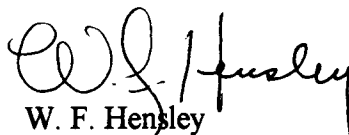
The milestones we have established for completion of this important task are as follows:

- o Develop Draft policy (includes Guidance Document and Technical Basis Document) and coordinate with DOE elements - July 15, 1998;
- o Comment resolution period and workshop - September 2, 1998; and
- o Publication of new policy - October 1, 1998.

I would like to also inform you that a second initiative has begun recently by NN-51 to review the threat which is most credible to target our facilities to cause a radiological dispersal sabotage event. The nature of this review is basic to the credibility of any scenarios which may result in a radiological sabotage event. The current effort entails a determination as to whether radiological dispersal at a hardened DOE facility would be an attractive target for a terrorist group or a single individual with authorized access. We expect that the refinement of the radiological sabotage policy will ultimately reflect all aspects being discussed.

I will inform you should we experience any major impediments to this important tasking. If there are any questions relating to the progress of this matter, please feel free to contact me at 301-903-5277 or Carl Hassell at 301-903-4525.

Sincerely,



W. F. Hensley  
Deputy Associate Deputy Assistant Secretary  
for Technical and Environmental Support  
Defense Programs

cc:

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