

March 2, 2007

Dr. Robert Bari
Brookhaven National Laboratory
MS 0475B
P.O. Box 5000
Upton, NY 11973-5000

Dear Dr. Bari:

I appreciated the opportunity to review the "Evaluation Methodology for Proliferation Resistance and Physical Protection of Generation IV Nuclear Energy Systems" dated November 30, 2006. We asked staff from several U.S. Nuclear Regulatory Commission offices to review the document and provide comments.

The report is well written and provides an appropriate discussion of how to evaluate the proliferation resistance and physical protection of associated Generation IV Nuclear Energy Systems. I have some specific comments that you might find useful.

The document could benefit from an example to demonstrate how the process would work. The example facility could be a reactor or fuel cycle facility in a fictional country with characteristics that would enable the reader to better visualize the evaluation process described in the document.

There are a number of issues related to the subnational threat described for physical protection that might be considered for inclusion. Material control and accountability systems might be mentioned to address the insider portion of the threat. Additional modes of attack might be added, such as vehicle (watercraft) bomb attacks and stand-off attacks.

Discussion of design basis threat (DBT) development should reflect the current International Atomic Energy Agency draft technical document on design basis threat. It stresses the importance of a state's evaluation of the threat, but does not promote the absolute necessity of implementing a DBT.

If you have any questions related to our comments, please contact Mr. Joe Rivers of my staff. Mr. Rivers can be reached at (301) 415-7923, or e-mail JDR3@nrc.gov.

Sincerely,

/RA/

Roy P. Zimmerman, Director
Office of Nuclear Security and Incident Response

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