

April 7, 2009

Mr. Felix M. Killar, Jr.  
Nuclear Energy Institute  
1776 Street, NW, Suite 400  
Washington DC 20006-3708

SUBJECT: SOLUBLE URANIUM INTAKE CRITERIA IN SUPPORT OF 10 CFR 70.61

Dear Mr. Killar:

We have completed our review of your report entitled "Acute Chemical Toxicity of Uranium with Application to 10 *Code of Federal Regulations* (CFR) 70.61" (ML090070576) dated October 14, 2008. The focus of our review was your proposed resolution of our comments contained in the July 24, 2008, meeting summary that was issued on August 18, 2008 (ML082210440).

Most comments appear to have been addressed adequately. However, the report does not adequately address qualitatively and quantitatively the uncertainties in toxic health effects from exposure to soluble uranium which primarily arise from not having sufficient soluble uranium exposure data. As such, the report appears to lack the technical basis for substantiating significant increases in soluble uranium intake criteria in support of 10 CFR 70.61. A meeting at the U.S. Nuclear Regulatory Commission (NRC) Headquarters is being scheduled for May 12, 2009, to discuss this apparent shortfall and other specific NRC comments that appear as highlighted text in the enclosed report. In the meeting, the NRC staff would also like to discuss other related issues such as dermal exposure to hydrogen fluoride derived from a uranium hexafluoride release and potential effects of revised soluble uranium intake criteria on existing Integrated Safety Analyses.

If you have any questions regarding this matter, please contact Peter Habighorst at (301) 492-3136, or via e-mail to [peter.habighorst@nrc.gov](mailto:peter.habighorst@nrc.gov).

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov.reading-rm/adams.html>.

Sincerely,

**/RA/**

Daniel H. Dorman, Director  
Division of Fuel Cycle Safety  
and Safeguards,  
Office of Nuclear Material Safety  
and Safeguards

Enclosure:

NRC comments in the form of highlighted text in Nuclear Energy Institute report

cc: Janet Schleuter, NEI  
John Nagy, NFS  
Richard Burklin, AREVA  
Kevin Roberts, NFS  
James Salsman

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Daniel H. Dorman, Director  
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