

April 9, 1997

Stephen M. Sohinki, Director  
Office of Commercial Light  
Water Reactor Production  
Defense Programs  
Department of Energy  
Washington, DC 20585

SUBJECT: ACRS SCOPING ASSESSMENT OF POTENTIAL UNREVIEWED SAFETY QUESTIONS  
ASSOCIATED WITH MATERIAL INTERACTIONS FOR TPBAR LTAs

Dear Mr. Sohinki:

During your March 7, 1997, briefing of the Advisory Committee for Reactor Safeguards (ACRS), questions arose regarding the scope of DOE's analyses supporting irradiation of tritium-producing burnable absorber rod (TPBAR) lead test assemblies (LTAs). Specifically, the ACRS wanted to know whether DOE's report PNNL-11419, "Report on the Evaluation of the Tritium Producing Burnable Absorber Rod Lead Test Assembly," had considered potential unreviewed safety questions associated with material interactions during design basis accident conditions and neutronic effects of LTAs adjacent to fresh and high burnup fuel assemblies during rod drop accidents.

The ACRS has conducted a preliminary scoping assessment of these concerns and its results are provided in the enclosed memorandum to the staff and ACRS from Dr. August W. Cronenberg, ACRS fellow.

You should note that the staff does not usually make reports of this kind, which have not undergone peer review, available outside the Commission. However, because the information may prove useful to you in determining details of the ACRS's concerns, this memorandum is being provided for your use in accordance with the provisions of the May 22, 1996 joint memorandum of understanding between the NRC and DOE.

If you have any questions regarding this information, please contact the project manager, J. H. Wilson, at (301) 415-1108.

Sincerely,  
Marylee Slosson for/  
Thomas T. Martin, Director  
Division of Reactor Program Management  
Office of Nuclear Reactor Regulation

Project No. 697  
Enclosure: As stated  
cc w/encl: See next page

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NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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Sincerely,

A handwritten signature in dark ink, appearing to read "Thomas T. Martin", is written over a horizontal line.

Thomas T. Martin, Director  
Division of Reactor Program Management  
Office of Nuclear Reactor Regulation

Project No. 697

Enclosure: As stated

cc w/encl: see next page