

July 3, 2001

Mr. Ralph E. Beedle
Senior Vice President and Chief
Nuclear Officer, Nuclear Generation
Nuclear Energy Institute
1776 I Street, NW, Suite 400
Washington, DC 20006

Dear Mr. Beedle:

In the Nuclear Regulatory Commission's Agency Program Plan for High-Burnup Fuel (July 6, 1998), it was concluded that it would be appropriate for the industry to generate data to support acceptance criteria and assessments for burnup extensions beyond the current limit of 62 GWd/t. Nevertheless, it was stated that the NRC would consider cooperation with the industry in the data phase of such test programs. The purpose of this letter is to inform you that we have invited Framatome and Westinghouse to collaborate with NRC and other industry representatives in generating data to address high-burnup fuel issues for reactor use and for dry storage. This collaboration would be similar to existing industry and NRC collaboration on research with Zircaloy-clad fuel rods. Interpretation of data would be done independently.

By way of background, the NRC has a strong research program at Argonne National Laboratory to investigate high-burnup issues for Zircaloy-clad fuel rods. This program is being conducted with cooperation from the Electric Power Research Institute and the Department of Energy, and the program is designed to provide realistic results without excessive conservative margins. Further, the issues being addressed in this program have been discussed rather extensively at NRC by a panel that included many industry experts (see www.nrc.gov/RES/PIRT). A logical extension of the program at Argonne would include future tests on fuel rods with Framatome's M5 cladding, Westinghouse's ZIRLO cladding and the Zircaloy Duplex cladding.

Our staff discussed the possibility of testing these fuel types with Framatome and Westinghouse representatives at NRC headquarters in late February at which time we outlined some of the work that would be done. Related telephone conversations have also been held. To carry out this work, we would of course need their cooperation with fuel rods and cladding materials for the tests and their input in the planning of those tests.

We think that this type of cooperative testing is an efficient, cost effective method to confirm expectations of the cladding performance under accident conditions. We believe that the Electric Power Research Institute (EPRI) wants to continue their involvement in the Argonne program for this new phase of testing, and we are in communication with EPRI on this subject.

Sincerely,

/RA/

Ashok C. Thadani, Director
Office of Nuclear Regulatory Research

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Ashok C. Thadani, Director
Office of Nuclear Regulatory Research

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