

April 13, 2001

Dr. William D. Travers
Executive Director for Operations
U.S. Nuclear Regulatory Commission
Washington D.C., 20555-0001

Dear Dr. Travers:

SUBJECT: CLOSURE OF GENERIC SAFETY ISSUE-170, "REACTIVITY TRANSIENTS AND FUEL DAMAGE CRITERIA FOR HIGH BURNUP FUEL"

During the 481st meeting of the Advisory Committee on Reactor Safeguards, April 5-7, 2001, we discussed the proposed closure of Generic Safety Issue-170 (GSI-170), "Reactivity Transients and Fuel Damage Criteria for High Burnup Fuel." We also had the benefit of the documents referenced.

GSI-170 was originally initiated in 1995 to address the effects of high fuel burnup on fuel damage limits during design basis accidents such as reactivity transients. The staff has imposed limits on fuel burnup because there are not adequate data on fuel behavior at higher levels of burnup.

The staff has undertaken research programs to confirm the regulatory decision on the allowable level of fuel burnup. In our letter dated March 24, 1999, we stated that conducting an expert opinion elicitation to identify and rank important phenomena that affect high burnup fuel would provide a sound technical basis for refining the staff's confirmatory research program. We also stated that the expert opinion elicitation could provide technical bases for establishing the data and analyses needed to support applications for extending fuel burnup beyond current regulatory limits.

Since then, the staff has held a series of meetings with expert panels and carried out phenomena identification and ranking elicitations for loss-of-coolant accidents in pressurized water reactors (PWRs) and boiling water reactors (BWRs), rod ejection accidents in PWRs, and power oscillations in BWRs. The technical issues that are listed in GSI-170 have been clarified, and well-defined research programs are being pursued to address these issues.

We have, therefore, no objection to the proposed closure of GSI-170.

Sincerely,

/RA/

George E. Apostolakis
Chairman

References:

1. Memorandum dated February 6, 2001, from Farouk Eltawila, Acting Director, Division of Systems Analysis and Regulatory Effectiveness, Office of Nuclear Regulatory Research, Subject: Closure of Generic Issue-170, Reactivity Transients and Fuel Damage Criteria for High Burnup Fuel.
2. Letter dated March 24, 1999, from Dana A. Powers, Chairman, ACRS, to William. D. Travers, Executive Director for Operations, Subject: High Burnup Fuel Phenomena Identification and Ranking.