

February 18, 2005

MEMORANDUM TO: Robert A. Gramm, Chief, Section 2
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

FROM: Thomas W. Alexion, Project Manager, Section 1
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

/RA/

SUBJECT: SUMMARY OF FEBRUARY 9, 2005, CATEGORY 1 PRE-SUBMITTAL MEETING WITH ELECTRIC POWER RESEARCH INSTITUTE (EPRI) ON EPRI TOPICAL REPORT (TR) 1008018, "LICENSING CRITERIA FOR FUEL BURNUP EXTENSION BEYOND 62 GWd/tU - INDUSTRY GUIDE"

On February 9, 2005, representatives of EPRI met with the NRC staff to outline the objectives and technical approach of EPRI TR 1008018, "Licensing Criteria for Fuel Burnup Extension Beyond 62 GWd/tU - Industry Guide." This TR was developed to provide a consistent, industry-wide approach for light-water reactor fuel burnup extension applications and to facilitate NRC review of individual vendor-specific fuel burnup extension applications by identifying and pre-addressing generic criteria.

EPRI's presentation began with a general information/background-type discussion. The basic objective of the TR is to simplify vendor/licensee applications so that only deviations from the TR will need to be evaluated. Prior interactions with the staff on a preliminary draft occurred in the year 2000 time-frame. The current version of the TR was prepared with input from member utilities and all fuel vendors, and published in October 2004. EPRI's position is that this TR addresses all generic criteria except for reactivity-initiated accident (RIA) criteria and loss-of-coolant accident (LOCA) criteria (the RIA criteria have been submitted and are currently under NRC review, and the LOCA criteria are currently being prepared based on results from ongoing experimental programs).

EPRI indicated that it received guidance during a March 2000 meeting with the staff that review of the TR would be exempt from NRC fees. However, the staff indicated at this meeting that any fee waiver request for the review of the TR would have to be formally reviewed by the staff and could only be approved by NRC's Chief Financial Officer.

EPRI then continued their presentation with an overview of the TR, including the design basis limits/criteria, an overview of the burnup evaluation process, and an example of a burnup evaluation. The burnup evaluation process consists of four stages: (1) establishing a baseline for current fuel system designs, (2) performing a burnup-effects screening evaluation, (3) performing a comprehensive burnup-effects evaluation, and (4) establishing a new baseline for licensing fuel system designs for extended burnup (including development of supporting justification and data for burnup levels up to 75 GWd/tU). EPRI indicated that they plan on

R. Gramm

- 2 -

formally submitting the TR by the end of February and plan to request NRC approval by the end of 2005, due to impacts of on-going and future fuel development efforts.

During the course of EPRI's presentations, the staff expressed a variety of viewpoints and asked for clarification of several points. The staff indicated that there is definite value in this TR and generally agreed with its approach, although it's difficult to have an in-depth understanding of how it will work without seeing the details. The staff also indicated that there were a number of areas that should be addressed in the TR, including how to collect the supporting data, anticipated-transients-without-scrum events, alternate source term impacts, dose consequences, spent fuel issues, integrating new operating experience, and a process for amending the guidelines. The staff further indicated that while TRs in general do get high visibility, due to higher priority work (including review of advanced fuel designs), resource constraints and budget considerations, the staff will not be able to complete its review of this TR by the end of 2005. The staff added that as resources become available, a completion schedule in 2006 appears plausible, but the actual review schedule would be established during the staff's acceptance review of the TR.

A list of meeting attendees is attached. The presentation slides are available in ADAMS under Accession Number ML050410167.

Project No. 669

Attachment: Meeting Attendees

cc w/att:

Mr. David J. Modeen
Vice President and Chief Nuclear Officer
EPRI
1300 W. T. Harris Boulevard
Charlotte, NC 28262

Mr. Warren Bilanin, Director
EPRI
3412 Hillview Avenue
Palo Alto, CA 94304

Mr. Gary L. Vine, Executive Director
Federal and Industry Activities, Nuclear Sector
EPRI
2000 L Street, NW, Suite 805
Washington, DC 20036

Mr. Alexander Marion
Senior Director, Engineering
Nuclear Energy Institute
1776 I Street, NW, Suite 400
Washington, DC 20006-3708

Mr. James Lang, Director
EPRI
1300 W.T. Harris Boulevard
Charlotte, NC 28262

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Charlotte, NC 28262

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FAkstulewicz

HScott

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PClifford

UShoop

RMeyer

REinziger

SWu

MEETING WITH ELECTRIC POWER RESEARCH INSTITUTE (EPRI)

LIST OF ATTENDEES

FEBRUARY 9, 2005

EPRI

O. Ozer
G. Vine

OTHER

R. Montgomery (Anatech Corporation)
J. Holm (Framatome ANP)
B. Dunn (Framatome ANP)
R. Tsai (Exelon Generation)
L. Ott (ORNL)
N. Waeckel (EdF/France, WG2/FRP Chair.)
A. Marion (NEI)
B. Harvey (Duke Power)
W. Choe (TXU Power)
D. Mitchell (Westinghouse)
R. Sisk (Westinghouse)

NRC

T. Alexion
H. Scott
J. Voglewede
P. Clifford
U. Shoop
F. Akstulewicz
S. Wu
R. Gramm
R. Einziger