

October 16, 2003

MEMORANDUM TO: Catherine Haney, Director  
Policy and Rulemaking Program  
Division of Regulatory Improvement Programs, NRR

FROM: Peter C. Wen, Project Manager */RA/*  
Policy and Rulemaking Program  
Division of Regulatory Improvement Programs, NRR

SUBJECT: SUMMARY OF OCTOBER 1, 2003, MEETING WITH THE NUCLEAR  
ENERGY INSTITUTE REGARDING HIGH BURNUP FUEL ISSUES

On October 1, 2003, the NRC staff held a public meeting with representatives of the Nuclear Energy Institute (NEI) and the Electric Power Research Institute (EPRI). The purpose of the meeting was to provide the industry an opportunity to exchange information with the staff regarding nuclear fuel issues. Attachment 1 lists attendees at the meeting. Attachment 2 is a set of slides presented at the meeting by the EPRI representatives.

During the meeting, Dr. Rosa Yang of EPRI provided an overview of the industry Robust Fuel Program (RFP). She described the formation of the RFP, utility steering committee, and key issues currently being worked on by the RFP. She indicated that RFP is focused on (1) resolving the existing operation and reliability problems, such as fuel failure root cause investigations, impact of noble metal chemical application and Zn injection, and mitigation of axial offset anomalies and crud deposits, (2) collecting data to ensure safety margins under high burnup conditions, and (3) supporting regulatory stability. For the last item, RFP is working closely with RES to develop the LOCA criteria-related tests for advanced high burnup fuels. RFP also submitted a topical report on establishing licensing criteria of reactivity initiated accident (RIA) for high burnup fuel, "Basis for RIA Fuel Rod Failure and Core Coolability Criteria," (TR-1002865), for NRR review in 2002. The staff's review work is ongoing.

Mr. J. Deshon made a presentation on "Ultrasonic Fuel Cleaning Technology." He described the current "single channel" and more advanced "dual channel" fuel cleaners. He indicated that these ultrasonic fuel cleaning technologies have been successfully tested at Callaway and South Texas Project, respectively. The use of these fuel cleaners could reduce fuel crud, avoid axial offset anomaly related operational problems, and minimize personnel radiation exposure during refueling outages.

Having completed discussion of the agenda items, the group adjourned. Representatives of the NRC and the industry agreed that this meeting had been useful for the exchange of information on the discussion subject.

Project No. 689  
Attachments: As stated  
cc w/atts: See next page

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DISTRIBUTION: See attached page  
Attachment 2 (Meeting Handouts): ADAMS ML032810635  
File:G:\PRPR\PWen\MSUM1001\_HBFuel.WPD

OFFICE	PM:RPRP	SC:SRXB	(A)SC:RPRP
NAME	PWen	F Akstulewicz	RDudley
DATE	10/06 /2003	10/07/2003	10/16 /2003

OFFICIAL OFFICE COPY

cc: Mr. Alex Marion, Director  
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DISTRIBUTION: MTG. SUMMARY W/NEI Re High Burnup Fuel Issues Dated

Hard Copy

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RPRP r/f

OGC

ACRS

PWen

EMail

J.Dyer/ W. Borchardt

B. Sheron

J. Craig

D. Matthews/F. Gillespie

C. Haney

R. Dudley

J. Birmingham

S. Black/ M. Johnson

J. Wermiel

F. Akstulewicz

S-L Wu

U. Shoop

T. Attard

E. Kendrick

S. Sun

M. Kowal

M. Langschwager

R. Meyer, RES

H. Scott, RES

N. Lauben, RES

T. Bergman, OEDO

OPA

**NRC/NEI HIGH BURNUP FUEL MEETING**  
**LIST OF ATTENDEES**  
**October 1, 2003**

<u><b>NAME</b></u>	<u><b>ORGANIZATION</b></u>
Suzie Black	NRR/DSSA
Mike Johnson	NRR/DSSA
Frank Akstulewicz	NRR/DSSA/SRXB
Shih-Liang Wu	NRR/DSSA/SRXB
Undine Shoop	NRR/DSSA/SRXB
Tony Attard	NRR/DSSA/SRXB
Ed Kendrick	NRR/DSSA/SRXB
Summer Sun	NRR/DSSA/SRXB
Mark Kowal	NRR/DSSA/SRXB
Matt Langschwager	NRR/DSSA/SRXB
Ralph Meyer	RES/DSARE/SMSAB
Harold Scott	RES/DSARE/SMSAB
Norm Lauben	RES/DSARE/SMSAB
Ken Erwin	NMSS/SFPO
Peter Wen	NRR/DRIP/RPRP
Mike Billore	ANL
John Butler	NEI
Rosa Yang	EPRI
Odelli Ozer	EPRI
Boching Cheng	EPRI
Jeffrey Deshon	EPRI
Kurt Edsinger	EPRI
Matt Eyre	Exelon
Larry Phillips	Self