November 30, 2007

MEMORANDUM TO: Nader L. Mamish, Deputy Director
Licensing and Inspection Directorate
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

FROM: Meraj Rahimi, Senior Project Manager /RA/
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

SUBJECT: SUMMARY OF NOVEMBER 27, 2007, MEETING WITH THE NUCLEAR ENERGY INSTITUTE ON TECHNICAL AND LICENSING ISSUES RELATED TO STORAGE AND TRANSPORT OF RADIOACTIVE MATERIALS

On November 27, 2007, staff of the Nuclear Regulatory Commission (NRC), the Nuclear Energy Institute (NEI), Energy Power Research Institute (EPRI), cask designers, and utilities held a pre-application meeting to discuss the agenda for a meeting being planned for January 30 through February 1, 2008, in Charlotte, North Carolina. In addition, EPRI presented the results of its recent study on "Criticality Risks During Transportation of Spent Nuclear Fuel." The list of attendees and the meeting handouts are provided in Enclosures 1, 2, and 3.

The first part of the meeting focused on a proposed agenda (Enclosure 2) for the January meeting. The purpose of the January meeting is to have a better understanding of the bunrup credit and high burnup issues and identify paths to addressing the issues in a more complete and comprehensive manner. The goal is to address the issues in such a way that the prolonged debates on these issues would be brought to closure. EPRI stated that the low risk in criticality should be considered in deciding the amount of data needed to credit fission product isotopes. NEI stated that a discussion on burnup measurement needs to be added to the agenda. The staff stated that the discussion on burnup credit should include isotopic and criticality benchmarking along with burnup verification measurement. NEI stated that it can provide any additional information regarding the utility practices related to burnup credit or high burnup fuels that the NRC staff may need. The staff mentioned that the Argonne National Laboratory's plan for performing mechanical tests on spent fuel claddings is now available (ML073360044), and it can be discussed during the January meeting.

During the second part of the meeting, EPRI presented the results of its study on "Criticality Risks During Transport of Spent Nuclear Fuel." The staff questioned some of the EPRI's assumptions regarding its burnup credit methodology which indicated it would take a significant number of misloaded spent fuel assemblies for a flooded cask to become critical. However, the staff believes that if one uses bounding assumptions for burnup credit, it would take only one misloaded fresh fuel assembly or two underburned spent fuel assemblies for a flooded cask to become critical.

No regulatory decisions were made at the meeting.

TAC No. LA0233

Enclosures:
1. Attendance List
2. Proposed Agenda for January 08 Meeting
3. EPRI's Presentation

No regulatory decisions were made at the meeting.

TAC No. L24045

Enclosures:
1. Attendance List
2. Proposed Agenda for January 08 Meeting
3. EPRI's Presentation

DISTRIBUTION:
SFPO r/f B. White SFST staff

G:\SFPO\Rahimi\Dry Storage Task Force\27Nov07meeting_summary
G:\SFPO\Rahimi\Dry Storage Task Force\NRC_Nov. 27, '07_Criticality Risks.ppt

OFC:	SFST	E	SFST	E	SFST	
NAME:	MRahimi		MDeBose		RNelson	
DATE:	11/30/07		11/30/07		11/30/07	

C = COVER **E = COVER & ENCLOSURE** **N = NO COPY** **OFFICIAL RECORD COPY**

Enclosure 1

NRC - NEI Meeting
November 27, 2007

ATTENDANCE LIST

Name	Affiliation	Telephone
Meraj Rahimi	NRC/NMSS/SFST	301-492-3338
Nancy Osgood	NRC/NMSS/SFST	301-492-3235
Gordon Bjorkman	NRC/NMSS/SFST	301-492-3298
Zhian Li	NRC/NMSS/SFST	301-492-3235
Bob Einziger	NRC/NMSS/SFST	301-492-3283
Nader Mamish	NRC/NMSS/SFST	301-492-3305
Carl Withee	NRC/NMSS/SFST	301-492-3314
Ed Hackett	NRC/NMSS/SFST	301-492-3300
Bob Tripathi	NRC/NMSS/SFST	301-492-3219
Bill Brach	NRC/NMSS/SFST	301-492-3300
Natreon Jordan	NRC/NMSS/SFST	301-492-3288
Jeremy Smith	NRC/NMSS/SFST	301-492-3340
Kim Hardin	NRC/NMSS/SFST	301-492-3339
Larry Campbell	NRC/NMSS/SFST	301-492-3295
Michel Call	NRC/NMSS/SFST	301-492-3289
Matt Gordon	NRC/NMSS/SFST	301-492-3331
Chris Brown	NRC/ACNW&M	301-415-7111
Tae Ahn	NRC/NMSS/HLWRS	301-492-3150
Richard Lee	NRC/RES/DSA	301-415-6771
Ralph Meyer	NRC/RES	410-200-3674
Harold Scott	NRC/RES	301-415-6771
Mourad Aissa	NRC/RES/DSA	301-415-6383
Stefan Anton	Holtec	856-797-0900
Everett Redmond	NEI	202-739-8122
Brynn Fredett	Enercon Services	973-601-0510
Robert Beal	Constellation Energy	410-495-4018
Andrew Dykes	ABS Consulting	949-212-3752
Albert Machiels	EPRI	650-855-2054
Maureen Conley	Platts/McGraw Hill	(via audio conferencing)
John Kessler	EPRI	(via audio conferencing)
Steve Sisely	Energy Solutions	(via audio conferencing)
Brian Gutherman	Consultant	(via audio conferencing)
Bret Carlsen	DOE/Idaho	(via audio conferencing)
Tony Patko	NAC	(via audio conferencing)
Tom Danner	NAC	(via audio conferencing)
Lee Sampson		(via audio conferencing)
Olney Nelson		(via audio conferencing)

Enclosure 2

NRC/Industry Workshop on High Burnup Fuels and Burnup Credit

Proposed Agenda

January 30 - February 1, 2008

EPRI, Charlotte, NC

January 30

9:00 - 9:10	Welcome and Introductions
9:10 - 9:40	Meeting Objectives (NRC/NEI/EPRI)
9:40 - 10:40	NRC - Summary of Current Positions
10:40 - 11:00	Break
11:00 - 12:00	Industry - Summary of Current Positions
12:00 - 1:00	Lunch
1:00 - 1:30	Ground Rules and Expectations for Break-Out Sessions
1:30 - 2:00	Public Interaction
2:00 - 5:00	Concurrent Break Out Sessions

- Burnup Credit
- High Burnup Fuels

January 31

9:00 - 5:00	Continuation of Breakout Sessions

February 1

9:00 - 10:00	Reports from Break Out Session Leaders/Recommendations
10:00 - 10:15	Break
10:15 - 12:00	Group Discussion/Summary/Actions/Next Meeting

Enclosure 3