



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

January 31, 2000

MEMORANDUM TO: Susan F. Shankman, Deputy Director  
Licensing and Inspection Directorate  
Spent Fuel Project Office, NMSS

FROM: Chester Poslusny, Jr., Sr. Project Manager  
Transportation and Storage Safety  
and Inspection Section  
Licensing and Inspection Directorate  
Spent Fuel Project Office, NMSS

SUBJECT: SUMMARY OF PUBLIC MEETING WITH THE NUCLEAR  
ENERGY INSTITUTE DECOMMISSIONING WORKING GROUP

On November 3, 1999, a public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and Nuclear Energy Institute (NEI) Decommissioning working group to discuss issues of interest to NEI. Attachment 1 is a list of attendees. Attachment 2 is a copy of slides that were provided by NEI. These slides reflect information that was presented by NEI to the Commissioners at a public meeting on November 8, 1999. The following topics were discussed.

1. Efficient License Termination

NEI representatives stated that the level of detail and type of information required to be included in a license termination plan (LTP) should be revised to allow more flexibility for data revisions and updates between the time when the LTP is provided and the site surveys are completed and the actual decommissioning of the plant. In addition, a suggestion was made that the LTP content be simplified. NEI also commented that the LTP financial data requirements are not clear. In response, NRC staff stated that a sufficient level of detail in the LTP is required to enable the staff to write the safety evaluation report. NRC offered to meet with industry to discuss the LTPs that are currently under review to promote a better understanding of the standards for LTP contents and level of detail. Since NEI voiced a concern that desired concentration guidelines (DCGLs) should be provided only as a best estimate in the LTP, it was suggested that NEI prepare a white paper on how DCGLs should be factored into the LTPs. NEI indicated it would consider doing this.

2. Dual Regulation

NEI stated that some NRC regulations conflict with U.S. Environmental Protection Agency (EPA) regulations that affect site decommissioning and cleanup. This provides challenges to licensees planning for decommissioning. The staff acknowledged that a legislative action is needed to reconcile these differences. Mr. John Karhnak, EPA, indicated that he would be coordinating with NRC to better understand both key issues and NRC processes for decommissioning.

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### 3. Spent Fuel Cask Issues

In a slide entitled, "Spent Fuel Management," NEI stated that decommissioning plants cannot decommission their pools and operating plants cannot unload fuel. The staff voiced concern that these statements were not accurate and were misleading. NEI verbally clarified these statements to mean that, at a point in time, a specific licensee cannot in the short term choose an approved cask that can transport or store every fuel type or configuration that is currently stored in spent fuel pools. Further, the NRC approval process is difficult, long, costly, and sometimes has unpredictable outcomes. Additional slides noted that the cask design approval and amendment processes take too long and require too many NRC and licensee resources.

NRC noted that the rulemaking process used for certifying cask designs for use under a general license had been established to provide the public an opportunity to comment on the designs being reviewed as an alternative to having a public hearing. Further, the staff noted that the Commission has taken a number of steps to streamline the rulemaking process including use of the direct final rule process, eliminating the rulemaking plan for new cask design approvals, and having the Executive Director for Operations, rather than the Commission, sign new rules.

Options for further improvements were discussed including an NEI suggestion to adopt the 10 CFR Part 52 review methodology model to the cask approval process. In this option, a certificate of compliance (CoC) would reflect design criteria for a cask technology and a design change process. This would permit design changes within a prescribed envelope without the need for a subsequent rulemaking or additional NRC review and approval. Another option suggested by the staff was to jointly develop technical specifications and "smart" CoCs that would provide more flexibility to make changes without the need for NRC review and approval under the recently modified 10 CFR 72.48. A third option suggested by the NRC was for a utility or group of utilities to develop a lead plant or topical report package to resolve technical issues generic to the industry. This would make it easier for future designs to adopt approved design features without having to obtain design-specific approvals. It was agreed that it would be worthwhile to discuss these and other options in a separate meeting with the objective of reducing unnecessary regulatory burden.

The development of interim staff guidance (ISG) documents was also discussed. Much of the focus was on burnup credit and whether or not sufficient credit has been given or can be used by vendors. The staff's position is that in the recent revision of ISG-8, which deals with burnup credit, vendors are permitted to apply additional credit in their designs. At least two vendors have indicated that they will be able to take advantage of the staff's guidance in their designs. Further, the staff emphasized that if the industry can provide additional empirical and experience data providing a sound technical basis, additional credit could be granted by the staff in a future ISG revision. NEI stated that it wanted more advance notice of any new or revised ISGs. Such information would be useful to vendor planning and would also help to prioritize industry activities. The staff agreed to hold periodic planning meetings with NEI to discuss priorities for generic resolution and resource allocation.

No proprietary information was disseminated or presented at this meeting. No regulatory decisions were requested or made.

Please contact me if you wish to further discuss these issues.

- Attachments: 1. Attendance List
- 2. NEI Commission Meeting Presentation Slides

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<b>OFC:</b>	SFPO		SFPO		SFPO					
<b>NAME:</b>	CPoslusny;jh:dd		VLTharpe*		PEng					
<b>DATE:</b>	1/27/00		11/16/99		1/31/00					

**OFFICIAL RECORD COPY**

**Attachment 1**  
**Attendance List**

**NRC/NEI MEETING  
DECOMMISSIONING ISSUES  
NOVEMBER 3, 1999**

**ATTENDING:**

Name	Organization	Phone Number
Chet Poslusny	NMSS/SFPO	301-415-1341
Duke Wheeler	NRR/DLPO	301-415-1444
John Karhnak	U.S. EPA	202-564-9761
Larry Camper	NMSS/DWM	301-415-7234
John Greeves	NMSS/DWM	301-415-1437
A.E. Scherer	SCE	949-368-7501
L. Hendricks	NEI	202-739-8109
Ellen Ginsberg	NEI	202-739-8140
Albert Machiels	EPRI	650-855-2054
Alan Nelson	NEI	202-739-8110
Joe Holonich	NMSS/DWM	301-415-6708
Wayne Hodges	NMSS/SFPO	301-415-2398
Bill Brach	NMSS/SFPO	301-415-8500
W.F. Kane	NMSS	301-415-7800
Susan Frant Shankman	NMSS/SFPO	301-415-2277
Stephen Lewis	NRC/OGC	301-415-1684
Margaret Federline	NRC/RES	301-415-8003
Geoffrey Quinn	Bechtel	301-228-6352
Cheryl Trottier	NRC/RES	301-415-6232
Neil Jensen	NRC/OGC	301-415-1637
Geary S. Mizumo	NRC/OGC	301-415-1639
Stuart Treby	NRC/OGC	301-415-1644
Patricia Eng	NMSS/SFPO	301-415-8577
Don Cool	NRC/NMSS	301-415-7197
Mike Meisner	MYAPC	207-882-5700

**Attachment 2**  
NEI Commission Meeting  
Presentation Slides



# Decommissioning What's At Stake?

Lynnette Hendricks, NEI

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The logo for the Nuclear Energy Institute (NEI), featuring the letters 'NEI' in a bold, sans-serif font. A stylized, thick, black graphic element resembling a curved line or a partial circle is positioned below the 'N' and 'E'.



# **Safe, Timely, Efficient Decommissioning Essential for:**

- Public Confidence
- Ratepayer and Shareholder Value

**NEI**



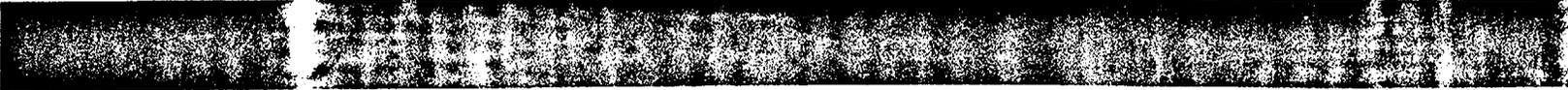
# Safe, Timely, Efficient Decommissioning

- What's Needed?
  - Certified Spent Fuel Casks
  - Efficient License Termination Process
  - Risk Informed Regulations



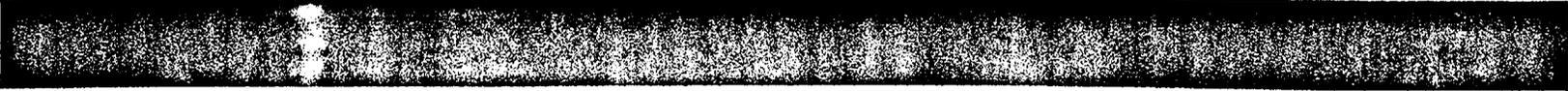
# Spent Fuel Management

- Historical Perspective
  - NRC rules of engagement
  - Cask certification time line reduced
    - ◆ 3-4 years down to about 20 months
  - Scope of certifications are limited!



# Spent Fuel Management

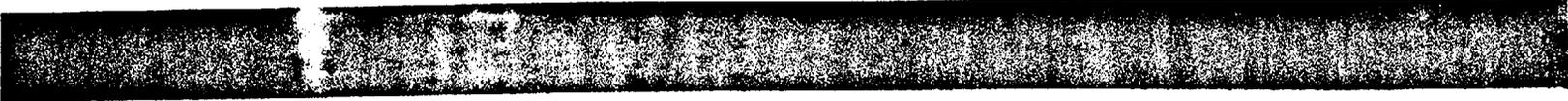
- Impact of Limited Certification
  - Decommissioning plants can't decommission their pools
  - Operating plants can't unload fuel
  - Band-Aids proposed are:
    - ◆ Impractical
    - ◆ VERY costly, i.e., in excess of \$10 Billion



# Limited Scope of Certification

## ■ Recommendations

- PRA would demonstrate extremely low risk
- PRA results support more timely, realistic Internal Staff Guidance



# Spent Fuel Management

- Inefficient Cask Listing/Amendment Process
  - Rulemaking to list takes too long
  - Amendment by rulemaking is a resource nightmare



# Inefficient Cask Listing/Amendments

## ■ Recommendations

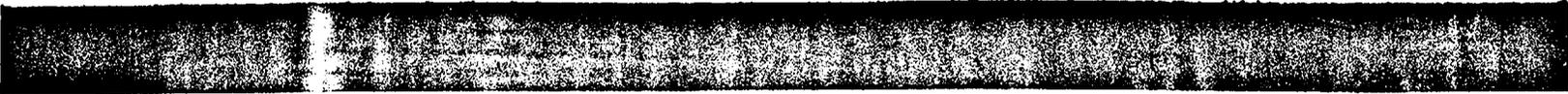
- Cut time to process internally
  - ◆ NRC review indicates several months can be eliminated from schedules
  - ◆ NRC PRs for fabrication at risk, final rule withdraw 30-day fabrication hold



# Inefficient Cask Amendment Process

- Recommendations
  - Include process and criteria for amendments in initial listing rule
  - Smarter Certificates
  - Resolve generic issues!!

**NEI**

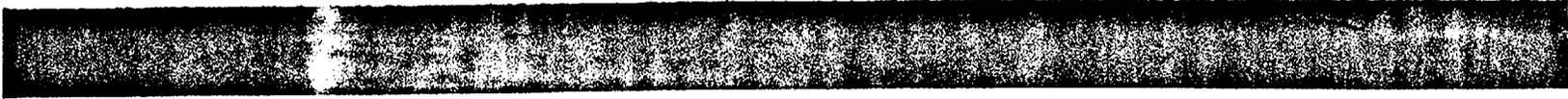


# Efficient License Termination

## ■ Recommendations

- Test needed for level of detail supporting LTP
- Dual regulation needs legislative fix
- Industry supports NRC initiative on material release
- Novel issues should go to Commission

**NEI**



# **Risk Informing Decommissioning Regulations**

Mike Meisner, President of  
MYAPC

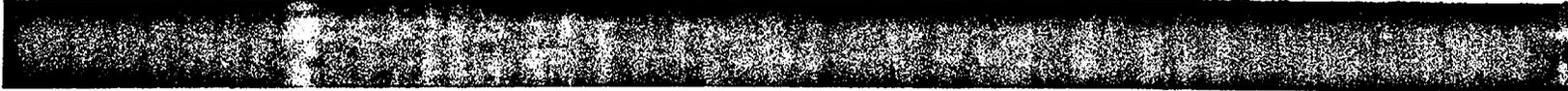
**NEI**



# Risk Informed Regulations

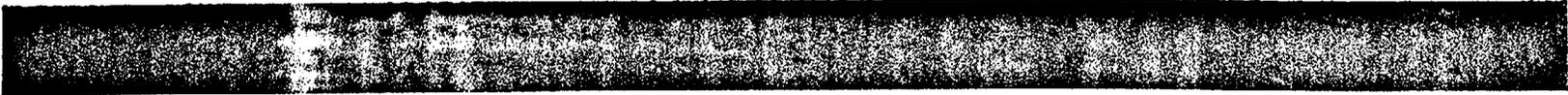
## ■ Overview

- Commission directed staff to integrate and risk inform certain regulations
- Staff produced good model in short time frame
- Conservatism and worst case estimates skewed risk profile and risk insights



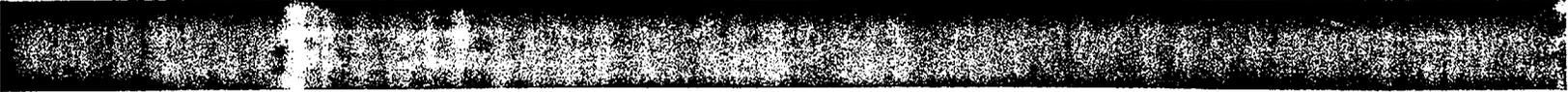
# Risk Informing D&D Regs

- Conservatism Added:
  - Human reliability
  - Heavy loads (used upper bound from previous analysis)
  - Consistent bias toward upper bound (Diesel pump reliability used .18 vs. .044 ALWR)



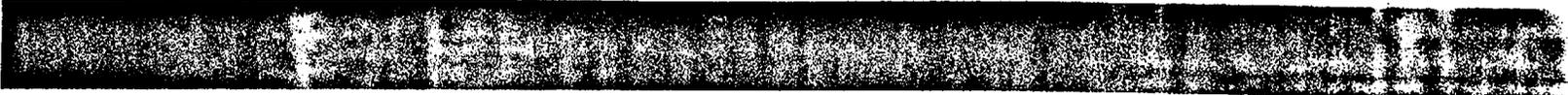
# Fuel Uncovery Endpoint

- Not related to public risk
- Postulated runaway oxidation correlates with risk to public
- Realistic heatup and endpoint adds 3 days to recovery time! (8 days Vs. 5)



# Implications for Operating Plants

- Inconsistent with Commission Policy  
and IPEs



# Recommendations

- Credit industry commitments
- Revise study to:
  - Use best estimates
  - Remove conservatisms
- Truncate sequences beyond 2 days
- Requantify Model



# Benefits of Corrected Study

- Valuable risk insights
- Tool to focus resources on risk
- Demonstration of margin and defense in depth
- Basis to avoid unnecessary resources for EP, insurance and security
- Avoids Carryover of erroneous risk insights to operating plants IPEs