July 12, 2010

MEMORANDUM TO: Doug Weaver, Deputy Director
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

FROM: Chris Staab, Project Manager **/RA/**
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

SUBJECT: SUMMARY OF JUNE 23 - 24, 2010, SPENT FUEL STORAGE AND TRANSPORTATION LICENSING CONFERENCE AND WORKSHOP

Background. On June 23 - 24, 2010, the NRC held a conference aimed at improving the licensing processes in 10 CFR Part 71 and 10 CFR Part 72. No regulatory decisions were made at the meeting. Enclosure 1 is the list of meeting attendees. Enclosure 2 is the agenda. Enclosure 3 is the presentation materials.

Discussion. The conference was sponsored by the Spent Fuel Storage and Transportation (SFST) Division, office on NMSS, U.S. Nuclear Regulatory Commission (NRC). Participants were encouraged to interact with NRC staff and colleagues to discuss insights on how licensing and certification actions could be more effective and efficient.

Conference topics included informational items such as: Status of SFST's Acceptance Review Procedure, Updates of Standard Review Plans and Interim Staff Guidance, Safety Culture Initiatives, and information regarding the Nuclear Energy Institute's (NEIs) Regulatory Issue Resolution Protocol, and presentations from NEI, industry, media representatives, and external stakeholders regarding possible improvements to the licensing process. Workshop topics included one working day devoted to 10 CFR Part 72 Licensing Basis.

The conference was recorded, webcasted, and archived at:

http://video.nrc.gov/Player.aspx?Event=479
http://video.nrc.gov/Player.aspx?Event=480

The conference also has a permanent website archiving the presentation materials at:

http://www.nrc.gov/public-involve/conference-symposia/2010-lic-process-conf.html

- Theme of Conference. The theme of the conference was, "Building on Past Achievements, Working on Today's Opportunities, and Anticipating the Future." Mike Weber gave the keynote speech, raising the question of where spent fuel storage and transportation will be in 2050.

- Building on Past Achievements - Recent accomplishments and relevance to stakeholders.

    - Acceptance Review Procedure - The acceptance review procedure was recently issued which should yield benefits for both NRC and industry by promoting the effective and efficient use of resources. Use of the procedure should reduce Requests for Additional Information and result in more predictable and stable review schedules.

    - Standard Review Plans and Interim Staff Guidance - A revision to the Standard Review Plan for storage systems at a general licensed facility is imminent. The standard review plan prioritizes reviews based on safety significance and should result in NRC focusing on the most risk significant aspects of applications. The plan will incorporate Interim Staff Guidance documents, including guidance on how to handle damaged fuel and guidance on how to conduct helium leak testing.

    - Regulatory Issue Resolution Protocol - NEI and other industry representatives have met with SFST staff regarding NEI's proposed Regulatory Issue Resolution Protocol to be used for resolving issues of mutual interest. Use of the protocol will help facilitate engagement between industry and staff on issues. NRC sees value in addressing regulatory issues early and only one time. The protocol should provide mutual benefit to industry and the NRC. Both NRC and industry have provided pilot issues to put the protocol to the test.

- Working on Today's Opportunities – Discussion of current work and building on foundation of successes.

    - Requests for Additional Information (RAI) - NRC implemented enhancements to the RAI process. Better up front coordination between the NRC and the applicant, staggered release, and ensuring the development of the draft Safety Evaluation Report at the same time as the RAIs should all contribute to improved RAIs and applicant responses – in both quality and timeliness.

    - Technical Specifications and Certificates of Compliances (CoCs) - NEI provided a proposal with respect to determining what should and should not constitute technical specifications. The proposal should preclude unnecessary amendment requests, which will benefit both industry and the NRC.

    - Change Authority (10 CFR 72.48) - NRC provided a proposal for discussion to revise 10 CFR 72.48 to provide increased clarity for when a licensee or certificate holder is required to pursue a license amendment for changes to a facility or spent fuel storage cask design. The proposal, if it were successfully implemented, could reduce the number of amendment requests while at the same time

minimizing the chances that inappropriate changes are made without NRC approval – and adds predictability to the process.

- Anticipating the Future – What is over the horizon and encouraging stakeholder involvement.

  - Enhance NRC spent fuel storage and transportation licensing process - The staff is performing a Lean Six Sigma review of the licensing process to find ways to make it more effective and efficient. One area is the rulemaking process associated with storage CoCs. A discussion occurred regarding what NRC could be doing differently while still meeting its obligation to provide for public comment.

  - Revisit the paradigm for spent fuel storage and transportation - Staff provided a plan to perform a thorough review of the regulatory programs to evaluate their adequacy for ensuring safe and secure storage and transportation of spent nuclear fuel for extended periods beyond the 120 year timeframe considered up to this point.

  - Develop flexible regulatory tools to assess alternative spent fuel management options - The integrated regulatory framework will be used to assure that NRC regulatory programs address the evolving needs and technological innovations in the back-end of the nuclear fuel cycle in a systematic and comprehensive fashion, and to assure that the implementation of emerging national policy and legislative initiatives is accomplished in a timely and cohesive manner.

- Panels. The panels consisted of NRC staff, state, public, media, and industry representatives, all of whom were highly informative. Two panels allowed for NRC to listen to thoughts and insights for improving the licensing process.

- Workshop. The second day was a workshop format and focused on improving licensing documents and the change authority process for spent fuel storage.

  - The NRC proposed actions regarding possible improvements to 10 CFR 72.48 and NEI proposed actions regarding possible improvements to what belongs in Certificates of Compliance and Technical Specifications (CoC/TS). The 10 CFR 72.48 issue is closely related to the CoC/TS issue. Much of the discussion centered around whether to develop solutions to both of the issues together or focus on one issue first separate from the other. The general consensus was to work the CoC/TS issue first and then the 10 CFR 72.48 issue in two phases. The Regulatory Issue Resolution Protocol (RIRP) will be used to develop a detailed execution plan.

  - With regard to CoCs and Technical Specifications, the discussion focused on the development of specific criteria for what belongs in CoCs and Technical Specifications. The RIRP may be used to evaluate specific industry proposals. Once resource implications are assessed, industry and staff may train on how to use the criteria to develop Technical Specifications.

- With regards to 10 CFR 72.48, the discussion focused on the possibility of revising 10 CFR 72.48 to include specific criteria which would be used to determine if a change could be made without NRC prior approval. There was general consensus that the 72.48 process can be improved to enhance predictability. NEI may in the shorter term revise the 10 CFR 72.48 guidance document and industry collectively train on how to use the guidance document. In the longer term, industry, NEI and NRC using the RIRP may discuss a rule change proposal to develop specific criteria relevant to dry storage for inclusion into 10 CFR 72.48, depending on how the shorter term actions progress. All actions are subject to a pending resource implications review by NRC, NEI and industry.

- Outcomes of Conference and Workshop. Much of the afternoon of the second day was devoted to collectively consolidating action items developed during both days. Actionable items regarding 10 CFR 72.48 and CoC/TS issues are summarized above under Workshop. Other potential actionable items depending on resource implications and priority include:

  - Consolidation of Part 72 amendments, integration of inspection activities under 10 CFR Part 50, 71, and 72, enhancing communication by utilizing users groups and establishing a process for receiving frequently asked questions which may lead to durable guidance, documenting lessons learned on recent operating events, clarifying the need and use of Interim Staff Guidance, and collectively training on RAI enhancements – possibly by conducting a public workshop regarding office instructions for RAI enhancements.

  - Need to engage states early and up front on issues, do not rely on a twelve day notice in the Federal Register (for example, radionuclide specific surface contamination limits), conduct meetings and outreach locally, where the impact will be, and utilize State Regional groups as a vehicle for reaching many states at one time.

  - Need to educate key stakeholders on both levels of hazard concept and risk inform regulations where possible.

  - Avoid engineer language (avoiding acronyms), simplifying regulatory structure, explaining agency processes and issuing timely meeting summaries.

- Next Steps:

    - The next Licensing Conference and Workshop will occur at TWFN Auditorium on November 2 and 3, 2011.

    - Actionable items will be prioritized dependent on resource implications by all stakeholders. Discussions regarding stakeholder resource implications will take place at a future NEI Dry Storage Task Force meeting using the RIRP. Some items may be folded into the COMDEK response referred to in COMSECY-10-0007, "Project Plan for the Regulatory Program Review to Support Extended Storage and Transportation of Spent Nuclear Fuel" delivered to the Commission on June 18.

TAC No. LA0417

Enclosures:
1. Attendees
2. Agenda
3. Presentation Materials
4. Presenter Biographies

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Distribution: NRC Attendees BWhite WWheatley SFST r/f

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ADAMS Package Accession No.: ML101760357 ADAMS Package Accession No.: ML101760395
ADAMS Package Accession No.: ML101760455 T:/CMS/Licensing Conference/Summary/BG.ppt
T:/CMS/Licensing Conference/Summary/CH.ppt T:/CMS/Licensing Conference/Summary/MW.ppt
T:/CMS/Licensing Conference/Summary/RL.ppt **ADAMS Package No.: ML101940018**

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NAME	CStaab		MDeBose		EBenner	
DATE	6/28/2010		7/12/2010		7/12/2010	

C=Without attachment/enclosure E=With attachment/enclosure N=No copy

OFFICIAL RECORD COPY

Attendees:

Name	Organization
Akhavannik, Huda	NRC
Anderson, Jim	B & W Y-12
Anton, Stefan	Holtec International
Arce, Jeannette	NRC
Barrett, Lake	L. Barret Consulting, LLC
Barto, Andrew	NRC
Bellamy, Steve	n/a
Benner, Eric	NRC
Bjorkman, Gordon	NRC
Bowden Berry, Elva	NRC
Boyle, Richard	DOT
Brown, William	J.L. Sheperd & Associates
Bryson, Kevin	Shaw Sten & Webster
Bunt, Randolph	Southern Nuclear
Buschman, Nancy	DOE
Call, Michael	NRC
Chan, Ryu	n/a
Chang, Fon-Chieh (Jimmy)	NRC
Chen, Yen	NRC
Conley, Maureen	Platts/McGraw-Hill
Cozens, Ian	NRC
Danner, Thomas	NAC International
Davis, Jennifer	NRC
Day, Neil	NRC
Devarakonda, Murthy	Washington TRU Solutions, LLC
DiNunzio, Nick	DOE
Eizinger, Robert	NRC
Garcia-Santos, Norma	NRC
Geddes, Richard	Savannah River Nuclear Solutions
Glenny, Jessica	NRC
Gordon, Matthew	NRC
Greene, Carlyn	UX Consulting
Grochowski, Teo	Robatel Technologies
Gunderson, Lynne	Xcel Energy
Gutherman, Brian	Advanced Concepts, inc.
Hall, Gregory	CH2M-WG
Halstead, Bob	State of Nevada, Agency for Nuclear Projects
Hannah, John	GNF
Harris, Wayne	Progress Energy
Hedger, Troy	Alpha-Omega Services, Inc.
Hertzberg, Joshua	Naval Sea Systems Command
Holahan, Patricia	NRC
Kent, Gregory	Duke Energy
Kluk, Anthony F.	DOE
Kraft, Steven	NEI
Langston, Andrew	Global Nuclear Fuel/GEH
Lanthrum, Gary	DOE Office of Logistics Management
Lee, Richard	NRC
Li, Diana	PSEG Nuclear
Liu, Steve	NRC

Attendees continued:

Name	Organization
Luncher, Mark	HPTI
Malsch, Marty	Egan, Fitzpatrick, Malsch & Lawrence PLLC
Marcinkiewicz, Charles	UniStar Nuclear Energy
Marion, Alexander	NEI
Martin, Zita	TVA
Metlay, Damiel	US Nuclear Waste Technical Review Board
Miles, Barry	Naval Nuclear Propulsion Program
Mitchell, Robert	Yankee Atomic Electric Company
Morin, Tammy	Holtec International
Narayanan, Prakash	AREVA-Transnuclear, Inc.
Noss, Philip	AREVA Federal Services, LLC
Ordaz, Vonna	NRC
Patko, Anthony	NAC International
Pearson, Jim	NRC
Pennington, Charles	NAC International
Pfabe, John	AEP - D.C. Cook
Ragland, Robert	NRC
Redmond, Everett	NEI
Richardt, Kelley	Source Production & Equipment Company
Ropon, Kimberly	NRC
Runyon, Tim	IEMA Division of Nuclear Safety
Sampson, Michele	NRC
Samson, S. Lee	Xcel Energy
Saverot, Pierre	NRC
Schwab, Patrick	DOE
Seaman, Craig	NAC International
Seawright, Jimmy	Luminant Power
Sellmer, Todd	Washington TRU Solutions, LLC
Shaw, Don	Transnuclear
Shuler, james	DOE
Sippel, Timothy	NRC
Sloma, Tanya	Westinghouse Electric Company
Staab, Christopher	NRC
Supko, Eileen	Energy Resources International, Inc.
Tang, David	NRC
Termini, Raymond	Exelon Nuclear
Thatipamala, Ramakrishna	Progress Energy Florida
Thomas, Sydnor	TechNet/SumOne Services
Thrower, Alex	Blue Ribbon Commission on America's Nuclear Future
Tramm, Tom	Zion Solutions
Tripathi, Bhasker	NRC
Vescovi, Peter	Westinghouse Electric Company
Walden, Gary	Duke Energy
Waters, Michael	NRC
Weathersby, Jason	SCANA
Weber, Michael	NRC
Weiner, Ruth	Sandia National Labs
White, Bernard	NRC
Whitham, Kenneth	DOE
Witt, Kevin	NRC
Wong, Emma	NRC
Wood, Kent	NRC
Young, Mitzi	NRC

SPENT FUEL STORAGE AND TRANSPORTATION
LICENSING PROCESS CONFERENCE AND WORKSHOP

June 23-24, 2010
Nuclear Regulatory Commission Headquarters – TWFN Auditorium

We are planning an exciting program and welcome your active participation.

Purpose: This conference is sponsored by the Spent Fuel Storage and Transportation (SFST) Division, U.S. Nuclear Regulatory Commission (NRC). The conference is being held as part of NRC staff's intentions to continuously improve the process for 10 CFR Part 71 and 10 CFR Part 72 licensing and certification actions. Participants are encouraged to interact with NRC staff and colleagues to discuss insights on how our interactions could be more effective and efficient.

Format: Conference topics include informational items such as: Status of SFST's Acceptance Review Procedure, Updates of Standard Review Plans and Interim Staff Guidance, and information regarding NEI's Regulatory Issue Resolution Protocol, and presentations from NEI, industry, media representatives, and external stakeholders regarding possible improvements to the licensing process. Workshop topics include one working day devoted to 10 CFR Part 72 Licensing Basis.

AGENDA

Wednesday, June 23 – Conference

7:30 - 8:30 am Check In

8:30 - 8:45 am **Welcome and Introduction (Chris Staab)**

Objective: SFST's objective is to continually improve the licensing process - our conference and workshop will focus on past, present, and future licensing process actions. Industry and NEI feedback is necessary to help SFST continually improve the licensing process. This morning will be informational and will focus on actions taken since the 2005 Licensing Conference to improve the licensing process. The afternoon will be facilitated and will allow for thoughts and insights to be presented for improving the licensing process. The second day will be a facilitated workshop and will focus on outcomes from the NEI Dry Storage Forum with respect to 10 CFR Part 72 Licensing Basis and next actions.

8:45 - 9:15 am **Keynote Presentation (Mike Weber)**

Objective: Provide a high level view of where spent fuel storage and transportation is and where it is going.

9:15 - 9:20 am **Interaction Ground Rules and Panel Introduction (Meraj Rahimi)**

9:20 - 10:10 am **Informational Items Panel - High Level Summary of Actions Taken Since 2005 Licensing Conference (Chris Staab, Kevin Witt, Ron Parkhill, Matt Gordon, Mike Waters and Everett Redmond)**

Objective: Will provide a snapshot of actions taken by SFST since the previous Licensing Conference, status of the Acceptance Review Procedure, Safety Culture, Update of Standard Review Plan and Interim Staff Guidance, Status of COMDEK-09-0001 Response, and NEI's Regulatory Issue Resolution Protocol. Q&A after each update.

10:10 - 10:30 am Break

10:30 - 11:30 am **Informational Items Panel – Continued**

11:30 - 12:40 pm Lunch Break

12:40 - 12:50 pm **Afternoon Session Opening Comments (Doug Weaver)**

Objective: The afternoon will be facilitated and will allow for NRC to listen to thoughts and insights for improving the licensing process. Presentations will be provided by NEI, Industry, and Public Representatives.

12:50 - 1:00 pm **Interaction Ground Rules and Panel Introduction (Facilitator – Susan Saltor)**

1:00 - 3:00 pm **Industry Thoughts and Insights Panel - (Everett Redmond, Kate Roughan, Tammy Morin, Raymond Termini, and Randy Bunt) – Facilitated**

Objective: Thoughts and insights to improve the licensing process will be presented. Q&A after each presentation.

3:00 - 3:15 pm Break

3:15 - 3:20 pm **Interaction Ground Rules and Panel Introduction (Facilitator – Susan Saltor)**

3:20 - 4:50 pm **Public Thoughts and Insights Panel - (Bob Halstead, Tim Runyon, Lake Barrett, Charles Pennington, and Maureen Conley) – Facilitated**

Objective: Thoughts and insights to improve the licensing process will be presented. Q&A after each presentation.

4:50 - 5:00 pm **Closing Remarks - (Eric Benner)**

Thursday, June 24 – Workshop

8:30 - 8:45 am **Introduction (Vonna Ordaz)**

Objective: Today's facilitated workshop will focus on outcomes from the NEI Dry Storage Forum with respect to 10 CFR Part 72 Licensing Basis and next actions. The morning will focus on a specific proposal from the NRC with respect to 10 CFR 72.48. The afternoon will focus on a specific proposal from industry with respect to CoCs and Technical Specifications. Both items are interdependent and will likely include a discussion of FSAR enforceability. A summary of next steps will follow.

8:45 - 9:00 am	**Opening Comments (Cathy Haney)** Anticipating the Future: What's over the horizon and encouraging stakeholder involvement.
9:00 - 10:00 am	**Session 1 – 10 CFR 72.48 Proposal (Ray Lorson)** Objective: Brief presentation based on outcomes from breakout sessions at NEI Dry Storage Forum.
10:00 - 10:15 am	Break
10:15 - 11:20 am	**Session 1 – 10 CFR 72.48 Discussion (Facilitator - Earl Easton)** Objective: Facilitated discussion regarding the proposal and summary of next actions.
11:20 - 12:30 pm	Lunch Break
12:30 - 1:30 pm	**Session 2 – CoC and Technical Specifications Proposal (Bryan Gutherman)** Objective: Brief presentation based on outcomes from breakout sessions at NEI Dry Storage Forum.
1:30 - 1:45 pm	Break
1:45 - 2:50 pm	**Session 2 - CoC and Technical Specifications Discussion (Facilitator – Chris Staab)** Objective: Facilitated discussion regarding the proposal and summary of next actions.
2:50 - 3:30 pm	**Session 3 - Summarize Actionable Items and Next Steps (Chris Staab and Everett Redmond)** Objective: Based on what we heard during the conference and workshop – a summary of next steps will be provided with an opportunity for feedback. Improvement suggestions from the first day will be considered for breakout sessions for next year's NEI Dry Storage Forum.
3:30 - 3:45 pm	**Closing Remarks - (Eric Benner)**

Presentation Materials:

The NRC Web-based access tool, located at http://www.nrc.gov/reading-rm/adams/web-based.html, will enable you to search for NRC public documents in the Agencywide Documents Access and Management System (ADAMS) database. ADAMS documents are provided in Adobe Portable Document Format (PDF).

Day 1 (June 23, 2010):

Keynote: Michael F. Weber, Deputy Executive Director for Operations – Where will we be in 2050? (ADAMS Accession #ML101800520)

Afternoon Opening Comments: Cathy Haney, Director, Office of Nuclear Material Safety and Safeguards – Anticipating the Future in Spent Fuel Storage and Transportation Licensing (ADAMS Accession #ML101800237)

Panel 1 – Informational Items Panel - High Level Summary of Actions Taken Since 2005 Licensing Conference:

Christopher Staab, Acceptance Reviews for Spent Fuel Storage and Transportation Applications; Office Instruction – 14 (ADAMS Accession # ML101760366)

Ron Parkhill, Updating NUREG-1536 Standard Review Plan for Spent Fuel Dry Storage Systems at a General License Facility (ADAMS Accession # ML101760368)

Matthew Gordon, Development of Interim Staff Guidance (ISG) Documents in Spent Fuel Storage and Transportation (ADAMS Accession # ML101760372)

Kevin Witt, NRC's Safety Culture Initiative (ADAMS Accession # ML101760375)

Mike Waters, Regulatory Program Review for Extended Storage and Transportation (ADAMS Accession # ML101760377)

Everett Redmond, Update on NEI Dry Storage Task Force Activities (ADAMS Accession # ML101760387)

Panel 2 – Thoughts and Insights Panel - (NEI, Utility Dry Storage Users Groups, Spent Fuel Storage and Transportation CoC Holders, Non-spent fuel Part 71 CoC Holders):

Everett Redmond, NEI Dry Storage Task Force Thoughts and Insights (ADAMS Accession # ML101760399)

Kate Roughan, Type B(U) Licensing Issues (ADAMS Accession # ML101760418)

Tammy Morin, License Application/Amendment Process Successes and Areas for Improvement (ADAMS Accession # ML101760420)

Raymond Termini, Recent Exelon Experience and Observations with Regulatory Oversight of Dry Cask Storage Implementation and Operations (ADAMS Accession # ML101760428)

Randy Bunt, NRC Communication with Dry Storage Users Groups (Holtec) (ADAMS Accession # ML101760437)

Panel 3 – Thoughts and Insights Panel - (Media Representatives, State Representatives, External Stakeholders)

Bob Halstead – License Process Conference, Thoughts and Insights Panel (ADAMS Accession # ML101760458)

Tim Runyon – Licensing Process Conference, Illinois Emergency Management Agency, Division of Nuclear Safety, Spent Fuel Storage and Transportation (ADAMS Accession # ML101760469)

Charles Pennington – NRC Licensing Conference, Thoughts and Observations on Progressing Towards Regulatory and Licensing Proportionality (ADAMS Accession # ML101760479)

Maureen Conley – NRC as Superhero: Keeping the Country Safe (ADAMS Accession # ML101760485)

Day 2 (June 24, 2010):

Morning Opening Session: Ray Lorson, Deputy Director for Technical Review Directorate, Division of Spent Fuel Storage and Transportation – 10 CFR 72.48 Capturing Experience and Seeking Improvements (ADAMS Accession #ML101800509)

Afternoon Opening Session: Brian Gutherman, Advanced Concepts, Inc. for The Nuclear Energy Institute – Industry Proposal on Part 72 CoC and Technical Specification Contents (ADAMS Accession #ML101800189)

Presenter Biographies:

First Day:

Opening Session:

Michael F. Weber was selected as the Deputy Executive Director for Operations for Materials, Waste, Research, State, Tribal, and Compliance Programs on March 3, 2010. Mr. Weber joined the NRC in 1982 as a Project Manager (Hydrogeologist) in NMSS where he held a number of progressively more responsible positions including: Chief, Regulatory Issues Section; Chief, Low-Level Waste and Decommissioning Projects Branch; Chief, Licensing Branch; Deputy Director, Division of Waste Management; Deputy Director, Division of Fuel Cycle Safety and Safeguards; and Director, Division of Fuel Cycle Safety and Safeguards. In 2002, he was appointed as the Deputy Director, Office of Nuclear Security and Incident Response (NSIR). In 2006, Mr. Weber was appointed as the Deputy Director, Office of Nuclear Reactor Regulation (NRR) and in 2007, Mr. Weber was promoted to Director, Office of Nuclear Material Safety and Safeguards (NMSS). Mr. Weber has also served as a Technical Assistant to former Chairman Carr and as an Executive Assistant to former Chairman Jackson. Mr. Weber is a graduate of the SES Candidate Development Program. Mr. Weber received a B.S. degree in Geosciences from the Pennsylvania State University.

First Panel:

Chris Staab is a Project Manager in the Division of Spent Fuel Storage and Transportation with the United States Nuclear Regulatory Commission. Chris has been with the NRC for two years. Previously, Chris worked at Naval Reactors Headquarters and the Naval Reactors Idaho Branch Office providing oversight over the Navy's spent fuel disposal program. Chris has a BS in Chemical Engineering from the University of Colorado – Boulder, Colorado and is a graduate of the Bettis Reactor Engineering School.

Ron Parkhill is a Sr Mechanical Engineer in NRC's Office of NMSS Division of Spent Fuel Storage and Transportation. Ron has been with the NRC for 26 years working also as an inspection team leader focused on design inspections of near term operating nuclear plants and in license renewal. Prior to joining the NRC Ron worked for Bechtel Power on the Grand Gulf project and as a contractor at Babcock and Wilcox, Public Service of Indiana, Duke Power and Southern California Edison. Ron has a BS in Mechanical Engineering from the University of Maryland.

Matthew Gordon is a Materials Engineer in the Office of NMSS Division of Spent Fuel Storage and Transportation. Matt has been with the NRC for 2.5 years as a technical reviewer and is the NRC representative on ASTM subcommittee C1671-07 for acceptance testing of neutron absorbing materials. Prior to joining the NRC he did post-graduate research at the University of Illinois on non-calcium based cements. Matt has a BS and MS in Materials Science and Engineering from Virginia Tech.

Kevin M. Witt is the Office Allegation Coordinator for the Office of Nuclear Materials Safety and Safeguards with the United States Nuclear Regulatory Commission and works in the Division of Spent Fuel Storage and Transportation. Kevin has been with the NRC for 6.5 years. Some of Kevin's duties for the NRC include managing spent fuel storage and transportation projects and managing the receipt and resolution of stakeholder concerns about impropriety associated with NRC-regulated activities. Kevin is also involved with safety culture related activities in the nuclear materials area. Kevin has a BS and MS in Mechanical Engineering from the University of Texas at Austin.

Michael Waters is a Branch Chief in the Division of Spent Fuel Storage and Transportation. He is currently leading the project plan for the extended storage and transportation regulatory program review. Mike has almost 15 years of with NRC and previously served as the chief of the thermal and containment branch in SFST. He has also been a technical reviewer and project manager for several storage and transportation review activities, and preparation activities associated with the Yucca Mountain license application. Mike has a BS in Nuclear Engineering and a MS in Nuclear Engineering Sciences from the University of Florida.

Everett Redmond II is Senior Project Manager, Used Fuel Storage and Transportation, at the Nuclear Energy Institute and has over 10 years of experience in dry cask storage licensing and design. In his role at NEI, he is responsible for all issues relating to used fuel transportation and storage. Everett has been with NEI since October of 2006. Prior to joining NEI, Everett was a Principal Engineer at Holtec International and was responsible for the shielding design and analysis of their dry cask storage and transportation systems and was also involved in the analysis of wet storage systems. Everett holds a Doctor of Philosophy from the Massachusetts Institute of Technology in Nuclear Engineering (1997). Everett is a member of the American Nuclear Society.

Afternoon Session:

Doug Weaver is the Deputy Director, Licensing and Inspection Directorate, Division of Spent Fuel Storage and Transportation, Office of Nuclear Material Safety and Safeguards. Mr. Weaver joined the NRC in 1993 as a Reactor Engineer in Region I. Since transferring to NRC Headquarters, Mr. Weaver has served in a variety of positions, including Reactor Systems Specialist in the former Office for Analysis and Evaluation of Operational Data; Senior Emergency Response Coordinator in the former Office of Incident Response Operations (now the Office of Nuclear Security and Incident Response); Senior Regional Coordinator/Program Engineer in the Office of the Executive Director for Operations; Chief, Planning and Scheduling Branch, Office of New Reactors; and more recently as Deputy Chief of Staff, Office of former Chairman Klein. Prior to joining the NRC, Mr. Weaver served in the U.S. Navy for 9 years as a nuclear trained submarine officer and earned qualification as Engineer. Mr. Weaver received a B.S.E degree in Mechanical and Aerospace Engineering from Princeton University. He is a graduate of the SES Candidate Development Program Class of 2009.

Second Panel:

Tammy Morin has a BS in Nuclear Engineering and an MS in Mechanical Engineering from Rensselaer Polytechnic Institute. Her experience prior to joining Holtec was at the Knolls Atomic Power Laboratory designing reactors for nuclear submarines. She joined Holtec in 2006 in the Nuclear Department as a licensing engineer and has been in the capacity of the licensing manager for approximately two years. She has worked on various license amendment requests and new licensing applications in both dry storage and transportation, including HI-STORM 100 and HI-STAR 60. She is also involved with the Nuclear Energy Institute's Dry Storage Task Force.

Raymond P. Termini has been working in the nuclear field since 1976. He was involved in initial construction and startup work at LaSalle County Nuclear Generating Station and then worked in plant Operations for 22 years, moving through a succession of Ops positions from non-licensed to licensed Operator to Senior Reactor Operator. Ray received his B.S. degree from Northern Illinois University in 1988, and obtained his Masters Degree in Project Mgmt in 1997. Ray began managing nuclear projects related to Exelon's reactor outages and modifications in 1998, moving to Dry Fuel Storage project work in 2004. In 2008 he was selected to manage implementation and support activities associated with Exelon Nuclear's expanding number of Independent Spent Fuel Storage Installations (ISFSIs).

Randolph C. Bunt, P.E., C.M. is currently a project manager for the SNC Dry Storage Fleet Program. Randy manages vendor interface, regulatory interface, campaign activities and oversight of improvements for the existing two sites and is current chair of the Holtec Users Group. Randy has over 29 years in the nuclear business at Southern Company. Previously, Randy has held various positions from the BWR Owners Group Chair, Subject Matter expert for various large components/systems, contract administrator for key vendors, nuclear support functions, outage coordination and execution leads, and design engineering. Randy has a BME and MS from Auburn University, is a registered engineer in Alabama and Georgia, and is a Certified Professional Manager. Randy has also served as Chair of EPRI and ASME Power Division committees.

Third Panel:

Bob Halstead has been Transportation Advisor to the State of Nevada Agency for Nuclear Projects since 1988. His primary responsibility is assessment of Yucca Mountain transportation impacts. He advised Nevada on development of the WIPP transportation system. From 1978 to 1988, Halstead worked on a broad range of utility systems planning and energy policy issues for the State of Wisconsin, including the Nuclear Waste Policy Act of 1982, and the 1987 Amendments Act. Halstead has also advised the State of Texas on repository impacts, the State of Tennessee on the Oak Ridge MRS facility, the Law and Water Fund of the Rockies on the PFS storage facility in Utah, and the State of Minnesota on dry storage at Prairie Island.

Lake Barrett is currently an independent consultant in the nuclear energy area with special expertise in the back end of the fuel cycle. Lake was the Deputy Director of DOE's Office of Civilian Waste Management from January 1993 until June 2002, during which he also held the position of Acting Director many times for a total of 5 years reporting directly to five different Secretaries of Energy. Although acting, he was the longest serving leader the Program ever had. He was responsible for implementing the United Sates' programs for spent nuclear fuel and high-level radioactive waste, as mandated by the Nuclear Waste Policy Act. He lead the complex scientific Yucca Mountain Geologic Repository program through the statutory site selection process culminating with President G. W. Bush's site designation recommendation and sustaining successful House and Senate votes. Lake has over thirty five years experience in the nuclear field serving in the DOE's Defense Programs and the U. S. Nuclear Regulatory Commission, where he was the Director of stabilization and cleanup of the damaged Three Mile Island reactor after the accident there. He also has had extensive managerial and engineering experiences in private industry at both Bechtel Power Corporation, with commercial nuclear power plants, and Electric Boat Division of General Dynamics with nuclear reactor and submarine systems design, operation, and decommissioning.

Tim Runyon is a 30 year veteran of the State of Illinois Emergency Management Agency (IEMA) Division of Nuclear Safety, formerly the Illinois Department of Nuclear Safety. He is currently the section manager for the Environmental Management section, which includes the Illinois inspection and escort program and the Low-level Radioactive Waste and Site Decommissioning unit. Mr. Runyon is a member and former chair of the Midwestern Council of State Government's Radioactive Waste Transportation Committee (MRMTC) and a former member of the Transportation External Coordinators Working Group (TEC/WG). He is here representing both the State of Illinois and the Midwestern radioactive materials transportation committee.

Charlie Pennington is currently involved with sales and marketing for the spent fuel storage and transportation businesses at NAC. He has previously led NAC's Marketing and Business Development organization, as well as the Consulting and Engineering/Projects Design Services (EDS) business units. As the Senior Vice President for EDS, he directed R&D, design, licensing, and projects for major spent fuel storage and transport systems. For more than three

decades, he has served in leadership positions within the spent fuel storage and transport industry. From 1966 through 1971, he held engineering and weapons officer positions in the U.S. Navy nuclear submarine force. With 43 years of nuclear experience involving development, commercialization, deployment, and operation of more than a dozen nuclear technology systems, he holds several patents for nuclear applications and has provided expert witness services in support of customers for a range of nuclear matters. He is also active in publishing and public outreach efforts on the comparative safety of all things nuclear. Mr. Pennington holds a bachelor's and two master's degrees in mathematics, nuclear engineering and economics, and marketing and finance from Duke University, North Carolina State University, and the University of Connecticut.

Maureen Conley has spent 20 years as a trade journalist covering the nuclear industry. She has written extensively about issues related to nonproliferation, plutonium disposition, high and low-level waste disposal, DOE cleanup, Yucca Mountain, WIPP, and the storage and transportation of spent fuel. She also worked as Director of Communications for U.S. Nuclear Waste Negotiator Richard Stallings and as a policy analyst for a federal contractor supporting former DOE waste program director Dan Dreyfus. She helped launched a the only monthly newsletter devoted exclusively to spent fuel storage and transportation. And for the past ten years, she has covered the spent fuel cask industry and NRC licensing activities as a freelance writer for Platts/McGraw-Hill. Maureen has a B.A. in Political Science from Duke University.

Second Day:

Morning:

Vonna Ordaz is the Director, Division of Spent Fuel Storage and Transportation. After receiving her B.S. degree in Mechanical Engineering from the University of Maryland, Ms. Ordaz joined the NRC in 1991 as an Engineer in the Office of Nuclear Reactor Regulation (NRR). From 1994 to 1997, she served as a Resident Inspector in Region IV. In 1997, Ms. Ordaz returned to Headquarters where she held a number of progressively more responsible positions in NRR, including Reactor Systems Engineer; Senior Enforcement Coordinator; Technical Assistant; and Chief, Reactor Safeguards Policy Section. In 2002, Ms. Ordaz was reassigned to the Office of Nuclear Security and Incident Response (NSIR) where she served as a Branch Chief in five different branches before being assigned as the Director, Nuclear Security Policy Project Directorate. Beginning in January 2006, Ms. Ordaz served as Deputy Director for Reactor Security and Rulemaking in the Division of Security Policy, NSIR. In 2007, she served as the Deputy Director, Division of Safety Systems and Risk Assessment in the Office of New Reactors briefly, before assuming the position as the Assistant for Operations in the Office of the Executive Director for Operations.

Catherine Haney was appointed Director, Office of Nuclear Material Safety and Safeguards (NMSS) as of May, 2010. Ms. Haney initially joined the NRC in 1981 as a Health Physicist Intern in the former Office of Inspection and Enforcement. After a break in Federal service, she rejoined the NRC in 1989 and served in a number of positions in NMSS, including Quality Assurance Specialist; Senior Health Physicist; and Section Chief in the Medical, Academic and Commercial Safety Branch and in the Rulemaking and Guidance Branch.
Since joining the Senior Executive Service (SES) in 2001, Ms. Haney has served in a number of senior management positions, including Chief, Safety and Safeguards Support Branch, NMSS; Deputy Director, Division of Nuclear Security, Office of Nuclear Security and Incident Response; Program Director, Policy and Rulemaking, NRR; Deputy Director, Division of Licensing Project Management, NRR; and Director, Division of Operating Reactor Licensing, NRR. She also completed an assignment as former Chairman Diaz's Executive Assistant for Materials and Security. In 2008, she was appointed to Deputy Director, Office of Nuclear Material Safety and Safeguards (NMSS). Ms. Haney received a B.S. degree in Radiological

Technology from the University of Maryland and an M.S. degree in Radiological Science from Emory University. She is a graduate of the SES Candidate Development Program.

First Session:

Raymond K. Lorson is the Deputy Director, Technical Review Directorate, Division of Spent Fuel Storage and Transportation, Office of Nuclear Material Safety and Safeguards. Mr. Lorson joined the NRC in 1991 as a Reactor Engineer in Region I. He subsequently was the Resident Inspector at the Peach Bottom and the Salem Nuclear Power Plants, and the Senior Resident Inspector at the Seabrook and the Salem Nuclear Power Plants. He has held progressively more responsible positions, including, Chief, Performance Engineering Branch and Chief, Plant Support Branch in the Division of Reactor Safety, Region I, and most recently, Chief, Decommissioning Branch in the Division of Nuclear Materials Safety, Region I. Prior to joining the NRC, Mr. Lorson served in the United States Navy. Mr. Lorson received a B.S. degree in Chemical Engineering from the University of Pittsburgh and is a 2008 graduate of the Senior Executive Service Candidate Development Program.

Second Session:

Brian Gutherman is a vice president with Advanced Concepts, Inc and the president of ACI Nuclear Energy Solutions. He is responsible for managing the company's ISFSI support and nuclear regulatory consulting programs, with a focus on spent fuel storage and transportation. Brian has been involved with the NEI dry storage task force since 1998 and has been a consultant to the nuclear power industry in the area of used ISFSI implementation and licensing since 2004. Mr. Gutherman has 28 years of experience in the nuclear industry in a variety of engineering and management positions for an architect/engineering firm, a nuclear utility, and a spent fuel storage and transportation cask vendor. Mr. Gutherman has a B.S. degree in mechanical engineering from Rutgers University (1982). He is a registered professional engineer in New Jersey and Florida, and possesses a Senior Reactor Operator certification for the Crystal River nuclear power plant.

Closing Remarks:

Eric J. Benner is the chief of the Licensing Branch, Division of Spent Fuel Storage and Transportation, Office of Nuclear Material Safety and Safeguards. Mr. Benner joined the NRC in 1990 as a Region-based Inspector in Region I. Since joining the NRC, he has served in progressively more responsible positions in the Office of Nuclear Security and Incident Response, the office of Commissioner Dicus, and the Office of Nuclear Reactor Regulation, where he served as a Team Leader for the Operating Experience Branch and the chief of the Environmental Review Branch in the Division of License Renewal. Mr. Benner received a B.S. degree in Nuclear Engineering from Rensselaer Polytechnic University and a M.S. in Environmental Engineering from Johns Hopkins University.