



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

June 23, 2015

MEMORANDUM TO: Meena K. Khanna, Chief  
Plant Licensing IV-2 and Decommissioning  
Transition Branch  
Office of Nuclear Reactor Regulation

FROM: William Huffman, Project Manager  
Plant Licensing IV-2 and Decommissioning  
Transition Branch  
Office of Nuclear Reactor Regulation

A handwritten signature in black ink, appearing to read "W. Huffman", is written over the "FROM:" line.

SUBJECT: SUMMARY OF APRIL 23, 2015, MEETING WITH THE NUCLEAR  
ENERGY INSTITUTE AND INDUSTRY ON SELECT POWER  
REACTOR DECOMMISSIONING TOPICS

On April 23, 2015, the U.S. Nuclear Regulatory Commission (NRC) held a Category 2 public meeting with the Nuclear Energy Institute (NEI) and Industry representatives to discuss ongoing activities to support power reactor decommissioning activities and lessons-learned. The primary objectives of the meeting included: (1) for industry and the NRC staff to share views on select topics that have emerged as areas where regulatory and licensing challenges have been identified, and (2) discuss a path forward on improving licensing action efficiencies. The meeting also touched on the planning efforts and scope of a Commission-directed power reactor decommissioning rulemaking effort. Information related to the meeting, including slide presentations by NEI and the NRC staff can be found in the Agencywide Document Access and Management System (ADAMS) Accession No. ML15160A301. A list of attendees is provided in the Enclosure.

The key industry messages included:

- Continue to give priority to near-term reactor decommissioning licensing actions.
- Standardize, to the extent possible, the NRC safety evaluations and regulatory basis to improve licensing action efficiency and predictability.
- Future decommissioning rulemaking should be focused primarily on areas that have required the processing of exemptions or amendments.

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The discussions related to specific decommissioning topics are summarized as follows:

Changes to Physical Security Plans – NEI expressed that the NRC's requests for additional information (RAIs) related to changes to physical security plans at decommissioning power reactors are inconsistent with the NRC endorsed process outlined in NEI 11-08, "Guidance on Submitting Security Plan Changes," Revision 0, August 2012 (ADAMS Accession No. ML12216A194). The NRC staff noted that, in some cases, the security plan changes that decommissioning licensees have provided, pursuant to the 10 CFR 50.54(p) change process, do not contain sufficient information for the staff to understand the revised security strategy. Details of what the plan change is trying to accomplish and the rationale supporting the licensee's conclusions have been inconsistent and necessitated RAIs from the NRC staff. The staff stated that licensees should follow the NEI 11-08 process for documenting security plan changes. However, the extent of security plan changes made during the transition from an operating reactor to a decommissioning facility may suggest the need to revise NEI 11-08 to address decommissioning specific lessons-learned. NEI and NRC agreed to work together to revise NEI 11-08, if necessary.

Fitness for Duty; Drug and Alcohol Testing Program – The NRC staff discussed its position on drug and alcohol testing at a decommissioning power reactor, as follows:

- The regulation in Title 10 of the *Code of Federal Regulations* (10 CFR), Part 26, Subpart I, "Managing Fatigue," and the drug and alcohol (D&A) testing are not explicitly required by 10 CFR Part 26 for power reactor decommissioning sites.
- Security requirements of 10 CFR Section 73.55, "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage," including the requirements to provide high assurance that the site security program will be able to defend against the 10 CFR 73.1, "Purpose and scope," design-basis threat (DBT), together with the Commission-approved security plan, do apply to decommissioning reactors.
- Security personnel are required to perform the same duties as an operating site.
- Elements of 10 CFR Part 26, D&A testing, are required by 10 CFR 73.55(b)(9).
- NRC Staff is in the process of updating Regulatory Guide 5.77, "Inside Mitigation Program," to clarify D&A guidance for decommissioning sites.

NEI noted all four power reactor licensees currently transitioning to decommissioning are continuing to maintain existing operating plant D&A testing programs on a voluntary basis.

Fitness for Duty; Security Work Hours and Fatigue Management – The NRC staff discussed its position on fatigue management at a decommissioning power reactor, as follows:

- The regulations in 10 CFR Part 26, Subpart I, regarding fatigue management provisions, do not apply to decommissioning reactors.
- Security requirements and the DBT are the same for a decommissioning power plant, as they are for operating plants.

- The decommissioning reactor security programs continue to implement the physical protection requirements described in 10 CFR 73.55.
- NRC staff believes that decommissioning reactor licensees must have adequate fatigue management provisions for security personnel in order the security personnel to perform the critical job duties of identifying and promptly responding to plant security threats.

The NRC staff will seek to address both D&A testing and fatigue management for security personnel at a decommissioning site in the decommissioning rulemaking. In the near-term, the NRC staff will work with NEI on the development of industry guidance addressing fatigue management and a D&A testing program for decommissioning reactors.

Aging Management – The NRC has issued RAIs to the decommissioning power reactor licensees to assess how licensees address aging management of passive long-lived structures and components, important to the safety of the spent fuel at a decommissioning facility (e.g., neutron absorbing materials, spent fuel pool structure). The NRC staff is seeking reasonable assurance that safe conditions for storage of the spent fuel in the spent fuel pool will be monitored and maintained during the potential 60-year decommissioning period. During the meeting, NEI indicated that resolution of this concern was impacting several licensing actions and that industry believes that the maintenance rule adequately addresses this concern. The NRC staff stated that internal NRC review of its position on aging management at decommissioning reactors is still ongoing and the staff is not yet prepared to discuss this issue. Once an NRC decision is made, it will be communicated appropriately to the industry.

Certified Fuel Handler Training – Both the NRC staff and NEI were in alignment regarding the need for standard industry guidance on a certified fuel handler training and qualification program at decommissioning power reactors. NEI is developing guidance that reflects NRC key considerations in recent safety evaluations.

Emergency Preparedness – NEI is developing a tiered approach to emergency preparedness for decommissioning reactors, based on distinct risk reduction demarcations during the decommissioning process (such as after permanent shutdown and after all spent fuel is moved into dry cask storage). NEI is informing its position based on lessons learned and the information developed in response to frequently asked questions.

Decommissioning Rulemaking – NEI supports the Commission directed decommissioning power reactor rulemaking to provide a stable and predictable regulatory environment for future decommissioning reactor licensees. However, NEI stated that the scope of the rulemaking should be targeted to address process efficiencies based on current areas subject to exemptions or other licensing actions. NEI is considering submitting a petition for rulemaking (PRM) to the NRC. If this approach is taken, NEI plans to submit the PRM by the end of 2015.

Members of the public were in attendance. The meeting was opened for public participation after discussions on the specific reactor decommissioning topics were made in accordance with the agenda. The public's concerns are summarized below:

- The long-term storage of spent fuel onsite at decommissioning facilities was the primary focus of the public's comments.

- The overall increase in security threat environment during the last 15 years needs to be considered in any regulatory actions or changes.
- Some level of offsite emergency preparedness should be maintained, even with all fuel stored in casks.
- Aging management of dry storage casks has not been adequately considered. Casks could be used for storage of fuel far longer than their 20-year original design basis.
- No design capability exists to monitor corrosion or other deteriorations occurring within the casks.
- General seismic concerns, tsunami risks, and security protection of dry storage casks at San Onofre Nuclear Generating Station was expressed.
- Fukushima lessons-learned were not being adequately applied to dry cask storage.

The NRC staff noted that most of the comments were out of the scope of the decommissioning meeting. The regulatory concerns about long-term storage of spent fuel in independent spent fuel storage installation (ISFSI) dry casks are not reactor decommissioning specific. The regulation of ISFSIs at decommissioning reactors is essentially the same as at operating reactors or at stand-alone ISFSIs.

No regulatory decision commitments were made at this meeting. Public Meeting Feedback forms were not received.

Enclosure:  
List of Attendees

## LIST OF ATTENDEES

APRIL 23, 2015, MEETING WITH NUCLEAR ENERGY INSTITUTE AND INDUSTRY

### ON SELECT POWER REACTOR DECOMMISSIONING TOPICS

#### U.S. NUCLEAR REGULATORY COMMISSION

H. Benowitz  
S. Bloom  
A. Bowers  
D. Broaddus  
J. Carneal  
D. Cunanan  
M. Dusaniwskyj  
D. Garner  
C. Gratton  
B. Green  
P. Harris  
W. Huffman  
M. Khanna  
J. Kim  
C. Jackson  
B. Mizuno  
M. Montecalvo  
T. Mossman  
L. Nguyen  
M. Orenak  
J. Peralta  
A. Persinko  
A. Pulvirenti  
G. Purdy  
W. Smith  
R. Turtill  
M. Vaaler  
B. Watson  
M. Webb  
T. Wengert  
D. White  
V. Williams  
G. Wilson  
B. Zaleski

#### NUCLEAR ENERGY INSTITUTE

A. Clore  
M. Hug  
D. Kline  
R. McCullum  
N. Pappas  
M. Richter

#### INDUSTRY

\*O. Walter, American Nuclear Insurers  
P. Gunter, Beyond Nuclear  
J. Bergman, Curtiss-Wright  
A. Cullu, Curtiss-Wright  
J. Egdorf, Dominion Kewaunee  
B. Zipp, Dominion Kewaunee  
P. Dixon, Duke Energy  
D. Dalyk, Emercon  
G. Van Noordennen, Energy Solutions  
B. Green, Entergy  
P. Paradis, Entergy  
J. Evans, Entergy  
P. Cowan, Exelon  
\*L. Sachs, Fair Winds Energy\*  
M. Callahan, Governmental Strategies Inc.  
L. Jenkins, Price Waterhouse Coopers (PWC)  
T. Magette, PWC  
B. Traynham, PWC  
J. Brabec, Southern California Edison  
\*D. Becker, State of New Hampshire  
D. Reddick, Winston and Strawn  
T. Pickens, Xcel Energy  
\*K. O'Conner, Vermont Yankee CAP\*

#### MEMBERS OF THE PUBLIC

\*D. Becker  
\*A. Levin  
\*A. Gunderson  
\*D. Gilmore  
\*A. Hoffman  
\*R. Thomas  
\*R. Morgal

\* Participated via teleconference

Enclosure

- The overall increase in security threat environment during the last 15 years needs to be considered in any regulatory actions or changes.
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Enclosure:  
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**DISTRIBUTION:**

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DBroaddus, NRR  
MDusaniwskyj, NRR  
MMontecalvo, NRR  
MVaaler, NMSS  
LNguyen, NSIR  
DWhite, NSIR  
HBenowitz, OGC

**ADAMS ACCESSION NOS.: ML15160A301 (Meeting Package); ML15099A015 (Meeting Notice);  
ML15160A299 (Meeting Summary); ML15112B149 (NRC Slides); ML15112B139 (NEI Slides) \*see previous**

OFFICE	NRR/DORL/ LPLIV-2/PM	NRR/DORL/ LPLIV-2/LA	NRR/DORL/ LPLIV-2/BC	NRR/DORL/ LPLIV-2/PM
NAME	WHuffman*	PBlechman*	MKhanna*	WHuffman
DATE	06/11/15	06/11/15	06/18/15	06/23/15

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