November 4, 2014

MEMORANDUM TO: James W. Andersen, Deputy Director
Division of Preparedness and Response
Office of Nuclear Security and Incident Response

FROM: Joseph D. Anderson, Chief ***/RA/***
Operating Reactor Licensing and Outreach Branch
Division of Preparedness and Response
Office of Nuclear Security and Incident Response

SUBJECT: SUMMARY OF PUBLIC MEETING BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION, THE NUCLEAR ENERGY INSTITUTE, AND INDUSTRY ON GENERIC EMERGENCY PLAN-RELATED DECOMMISSIONING TRANSITION ISSUES

The purpose of this Category 2 public meeting held on November 13, 2014, with members of the Nuclear Energy Institute's (NEI) Emergency Preparedness (EP) Decommissioning Transition Task Force was to discuss generic issues related to potential changes to a licensee's emergency plan following a licensee's decision to permanently cease operation in accordance with 10 CFR 50.82(a), based on the requirements of Title 10, Part 50 of the *Code of Federal Regulations* (10 CFR), Section 50.47(b) and Appendix E. Specific licensing activities currently under review by the staff were not discussed at this meeting.

This public meeting was held as a continuation of previous public meetings held with members of the NEI EP Decommissioning Transition Task Force on April 3, 2014 (Agencywide Document Access and Management System (ADAMS) Accession No. ML14106A242), and on May 22, 2014 (ADAMS Accession No. ML14160A789), to continue public dialog on generic EP-related decommissioning issues, specifically related to potential post-shutdown changes to licensee EP programs that a licensee may consider through the license amendment process prior to an exemption to EP requirements being granted.

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The agenda included discussions on the following decommissioning issues:

Proposed Emergency Plan Templates

NEI indicated their intent to engage the NRC staff in a series of public meetings to discuss industry's development of emergency plan templates, which NEI would subsequently propose to submit to the NRC for endorsement. These templates would focus on: (1) changes to on-shift/emergency response organization (ERO) staffing during post-shutdown (pre-exemption) phase to address permanent shutdown and defueled condition of facility; and (2) transition to dry cask storage phase.

In regards to emergency plan (EP) requirements for dry cask storage, NRC staff indicated that 10 CFR 72.32 currently outlines the emergency plan regulatory requirements for an independent spent fuel pol storage installation (ISFSI). In addition, guidance is already provided in NUREG-1567, "Standard Review Plan for Spent Fuel Dry Storage Facilities" (Agency-wide Document Access and Management System (ADAMS) Accession No. ML003686776), and in the Office of Nuclear Materials Security and Safeguards (NMSS) / Spent Fuel Project Office Interim Staff Guidance (ISG) 16, "Emergency Planning" (ADAMS Accession No. ML003724570). The NRC staff recommended that future public meetings discuss NRC's current process and precedent in transitioning emergency plan from spent fuel pool (wet) storage to ISFSI dry cask storage.

While the proposed Office of Nuclear Security and Incident Response / Division of Preparedness and Response (NSIR/DPR) ISG-02, "Emergency Planning Exemption Requests for Decommissioning Nuclear Power Plants," will identify an acceptable means of implementing EP exemptions, based on SECY-14-0066, "Request by Dominion Energy Kewaunee, Inc. for Exemptions From Certain Emergency planning Requirements," clear guidance does not exist on acceptable changes to emergency plans under the license amendment request (LAR) process, reflecting the permanent shutdown and defueled condition of the facility. The proposed industry template is intended to address that lack of formal guidance until addressed under a formal rulemaking.

Implementation of Permanently Defueled Emergency Action Levels (EALs)

NEI 99-01 (Revision 6), "Methodology for the Development of Emergency Acion Levels for Non-Passive Reactors," currently identified acceptable emergency classification schemes for an operating power reactor, permanently shutdown and defueled power reactor (spent fuel pool storage), and ISFSI located at an operating power reactor site. However, NEI 99-01 (Revision 6) does not address an acceptable classification scheme during the post-shutdown (pre-exemption) phase under the LAR process. Both NRC staff and industry representatives identified this as a potential area to address in a revision to NEI 99-01 or through possible NRC endorsement of an industry template, and will be discuss in future public meetings.

Addressing this issue has a direct impact on the abandonment of plant systems, structures and components no longer required to support an EAL scheme for a permanently shutdown and defueled facility.

Permanently Defueled Emergency Plan Staffing

NEI requested further clarification as to the staff's position on requiring an Radiation Protection Technologist (RPT) on-site while there is fuel in the spent fuel pool (SPF) to perform mitigative measures. The use of meter-trained individuals and installed radiation monitors, in lieu of an qualified RPT, was also discussed. In response, the staff discussed the following considerations, which factor into our technical review of proposed PDEP staffing levels:

- In the unlikely event of a SFP drain down, area radiation monitors would probably indicate off-scale high (above monitor range). If a drain down event were to occur, radiological monitoring for radiation exposure and possible radiological releases would be needed.

- A qualified RPT is trained to make decisions related to radiological safety, which may be significant in performing SFP mitigation actions under changing radiological conditions.

- Alarming dosimeters may not provide any real value since the set points would not reflect actual or projected conditions. In addition, meter-trained personnel typically are used for entry in known radiation levels that are encountered during normal operations -- not emergency conditions.

NEI requested further clarification as to the staff's position on requiring a two (2) hour augmentation time for designated emergency response organization (ERO) positions. The staff indicated that previous exemptions for decommissioning reactors were initially approved with a range of one to two hours (Zion was later approved at four hours). Since the staff's technical review of exemption requests is based on the ability to implement prompt SFP mitigation measures, the staff believes that a 2 hour augmentation time for technical and radiation protection support is prudent in providing assistance to on-shift (on-site) staff.

Continuous Control Room Manning

NEI requested further clarification on the need for continuous Control Room manning for a permanently shutdown and defueled facility. Staff indicated that EP regulations and guidance do not require continuous Control Room manning, but do require that various on-shift EP capabilities exist and still need to be performed within required time frames (e.g., event classification, notification of emergency declaration to designated offsite authorities, dose assessment, requests for offsite support (fire-fighting, medical transportation). The staff emphasized that licensee needed to ensure that changes to on-shift plant staffing levels and

location of on-shift staff did not impact the licensee's ability to perform required EP functions as designated in their proposed PDEP, and existing emergency plan until exemption approval granted.

10 CFR 50.54(q) Application

10 CFR 50.54(q)(3) permits a licensee to make changes to its emergency plan without NRC approval only if the licensee performs and retains an analysis demonstrating that the changes do not reduce the effectiveness of the plan and the plan, as changed, continues to meet the requirements of Appendix E in Part 50 and, for nuclear power reactor licensees, the planning standards of §50.47(b). A definition of the term "reduction in effectiveness" is provided in 10 CFR 50.54(q)(1)(iv).

NEI requested clarification on the use of the 10 CFR 50.54(q) process to implement changes to a licensee's PDEP following NRC approval of EP exemption request for a permanently shutdown and defueled facility, based on the determination by licensee that change does not constitute a reduction in effectiveness given the permanently shutdown and defueled condition of the facility. Correspondence between the NRC Office of the General Counsel (OGC) and NEI's legal counsel is publicly available in ADAMS (Accession Nos. ML14283A457 and ML14283A460).

Following NRC's granting of an EP exemption request, a licensee performing a 10 CFR 50.54(q) review, may evaluate impact of proposed PDEP changes against the requirements in Appendix E to Part 50 and the planning standards of §50.47(b), as exempted.

Status of Draft Interim Staff Guidance (ISG) Document

The latest draft version of NSIR/DPR-ISG-02, "Emergency Planning Exemption Requests for Decommissioning Nuclear Power Plants," along with resolution of public comments summary, has completed NRC inter-office and regional concurrence review. Following incorporation of review comments, the draft ISG is being submitted for technical editor review followed by OGC no legal objection (NLO) review, and then NSIR/DPR Director approval. Staff's goal is to have a Federal Register Notice (FRN) published, announcing publication of ISG and resolution of comments document, by the end of Calendar Year 2014. However, publication may be delayed based on the need to submit the ISG to the Advisory Committee on Reactor Safeguards (ACRS) for an opportunity to review.

Abandonment of Equipment

Appendix C to NEI 99-01 provides a stand-alone set of Initiating Conditions (ICs) / Emergency Action Levels (EALs) for permanently defueled nuclear power reactors for use in developing a site-specific emergency classification scheme. However, decommissioning facilities must retaining plant systems, structures and components required to support EALs for their "operating" emergency plan, until requested EP exemptions are granted or an LAR is approved revising the applicable accidents used as the emergency plan's licensing basis. As such, decommissioning facilities are maintaining in a long-term outage control status, rather than formally abandoning, equipment no longer required in their permanently shutdown and defueled condition.

The methodology for developing EALs in NEI 99-01 presently assigns a "mode applicability" (e.g., power operation, startup, hot shutdown, etc.) to various EAL initiating conditions (ICs). In the interim, licensees are using various human factoring methods to identify applicable EALs to plant operators and ERO staff.

The staff discussed that we are continuing to explore possible regulatory options to address this issue, based on the existing 10 CFR 50.54(q) process. In addition, the staff discussed with NEI/industry representatives the option of developing a revision to NEI 99-01 to provide a stand-alone set of ICs/EALs for the post-shutdown (pre-exemption) phase.

In summary, both NRC staff and NEI/industry representative felt the meeting was constructive and agreed to continue discussions in future public meetings on relevant EP-related decommissioning issues. February 2015 was identified as a tentative date for the next public meeting with the NEI EP Decommissioning Transition Task Force.

Enclosure:
Meeting Attendees

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Enclosure:
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Distribution::

B. Watson, FSMW	D. Broaddus, NRR	M. Hug, NEI
H. Benowitz, OGC	R. Lewis, NSIR	
DPR r/f		

Accession Number: ML14304A373

OFFICE	TL:NSIR/DPR/ORLOB	BC:NSIR/DPR/IRIB	BC:NSIR/DPR/ORLOB
NAME	MNorris	RKahler* via e-mail	JAnderson
DATE	10/30/14	10/30/14	11/04/14

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Meeting Attendees

PUBLIC MEETING TO DISCUSS GENERIC EMERGENCY PLAN-RELATED DECOMMISSIONING TRANSITION ISSUES

Thursday, November 13, 2014 (9:00 a.m. – Noon)

Name	Affiliation (if any)
Joseph D. Anderson	U.S. NRC (NSIR/DPR)
Robert Kahler	U.S. NRC (NSIR/DPR)
Michael Norris	U.S. NRC (NSIR/DPR)
Don Johnson	U.S. NRC (NSIR/DPR)
Richard Kinard	U.S. NRC (NSIR/DPR)
Raymond Hoffman	U.S. NRC (NSIR/DPR)
Howard Benowitz	U.S. NRC (OGC)
Eric Schrader	U.S. NRC (NSIR/DPR)
Bruce Watson	U.S. NRC (FSME)
Doug Broaddus	U.S. NRC (NRR/DORL)
Marshall Kohen	U.S. NRC (OCM)
Jerry Bonanno	Nuclear Energy Institute
Martin Hug	Nuclear Energy Institute
Mark Richter	Nuclear Energy Institute
Stew Yuer	Dominion (Kewaunee)
John Egdorf	Dominion (Kewaunee)
Clarence Gum	Dominion Corporate
Phyllis Dixon	Duke Energy (Crystal River 3)
Coley Chappell	Entergy (Vermont Yankee)
Carl Bergstrom	Duke Energy (Crystal River 3)
Sarah McDaniel	Duke Energy (Crystal River 3)
Daniel Daigle	Enercon Services, Inc.
Ron Markovich	Contingency Management Consulting Group
Pam Cowan	Exelon

The following individuals pre-registered to call into the meeting:

- Cheryl Laatsch, Pennsylvania Department of the Environment
- Tony Leshinskie, Vermont Public Services Department
- Deb Cwiekalo, NuScale Power
- Nancy Chapman, Bechtel Power Corporation
- John Angil, Vermont Department of Public Safety
- Diane Becker, New Hampshire Homeland Security and Emergency Management
- John Giarrusso, Massachusetts Emergency management Agency
- Tom Tramm, Certrec
- Kathleen Posteraro, Westinghouse Electric Company
- Ruth Thomas, Private Citizen

Enclosure