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Decommissioning and Used Fuel

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February 13, 2023

Ms. Jane Marshall

Director, Division of Decommissioning, Uranium Recovery, and Waste Programs
Office of Nuclear Materials Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Request for Review and Endorsement of NEI 22-01, "License Termination Process"

Project Number: 689

Dear Ms. Marshall:

The Nuclear Energy Institute (NEI)¹, on behalf of its members, submits the attached technical report NEI 22-01, "License Termination Process," for review and endorsement by the U.S. Nuclear Regulatory Commission (NRC). This report will assist decommissioning reactor licensees in the development and implementation of license termination plans (LTP) that satisfy NRC's requirements in 10 CFR 20, Subpart E, "Radiological Criteria for License Termination."

NRC review and endorsement will promote a consistent approach to development of LTPs by NRC licensees that are decommissioning commercial nuclear reactors. This outcome will increase the efficiency of NRC licensing actions and inspection activities associated with the license termination process.

Over the next decade, the industry and the NRC will be challenged by the need to develop, review, execute and approve an unprecedented number of license termination plan (LTP) submittals. For the most part, these submittals will be for sites that have chosen DECON as the decommissioning approach, with total project timelines ranging from ten years to as few as eight.

The complexity of the license termination process coupled with near-term project timelines requires that licensee LTPs be closely aligned with NRC expectations. To support timely completion of decommissioning projects in a safe and environmentally responsible fashion, it is critical that quality LTPs are submitted by

¹ The Nuclear Energy Institute (NEI) is the organization responsible for establishing unified industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all entities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel cycle facilities, nuclear materials licensees, and other organizations and entities involved in the nuclear energy industry.

licensees and that NRC completes reviews and issues safety evaluation reports in approximately one year. Recent experience indicates a significant misalignment between NRC expectations for LTP quality and completeness and license submittals. This has led to LTP approvals typically requiring several years of NRC staff review along with multiple requests for additional information.

NRC has published a vast compendium of guidance on license termination and related technical topics applicable to reactors, materials licensees, and fuel cycle facilities. Because of the very diverse nature of these facilities and the unique radiological remediation challenges they present, this compendium of guidance is necessarily complex and voluminous. For example, a key source of guidance, NUREG-1575, "Multi-Agency Radiological Site Survey Implementation Manual (MARSSIM)," is a collaboration between the EPA, DOE, DOD and NRC. It addresses survey design for a broad range radiological decommissioning projects including former defense sites posing very complex remediation challenges, many of which do not apply to the typical commercial reactor site. At the same time, MARSSIM does not provide guidance to the industry or the NRC on the design and conduct of surveys for subsurface structures and soils, which is an issue of significant regulatory interest for commercial reactor decommissioning.

NEI 22-01 addresses these issues by providing guidance to licensees in all aspects of the process including advance planning, historical site assessments, exposure scenarios, the design and conduct of surveys, radiological compliance, and reporting of final status survey results. Compliance with the standard format and content for LTPs as outlined in R.G. 1.179 is emphasized for uniformity and consistency and then enhanced with a discussion of the importance of those features unique to the specific site in question. NEI 22-01 also provides recommendations for promoting transparency in these activities by recommending a standard communications protocol with NRC, state, and local agencies at appropriate points during decommissioning. Operating experience and lessons gleaned from past decommissioning projects have been incorporated into the document.

NEI believes that NRC endorsement of this report will benefit both the NRC and the commercial reactor fleet by enhancing the safe, environmentally responsible, and timely completion of license termination-related activities, thus providing broad public benefit. NRC endorsement of NEI 22-01 will provide licensees with confidence that the approach provided in the guidance is consistent with the NRC's expectations. Additionally, as the industry continues to gain experience and develop improved technical capabilities and methodologies, NEI will update NEI 22-01 in future revisions and submit these revisions for NRC review, thereby ensuring continued improvement in license termination practices and alignment with NRC requirements.

NEI members pay dues that, in part, fund development of documents such as NEI 22-01, and NEI members are provided access to these documents in exchange for payment of those dues. NEI 22-01 is a proprietary consolidation of existing NRC guidance that is specifically crafted for use by commercial power reactors. It is supplemented by the collective license termination experience of NEI's members and is enhanced with the technical methodologies that have been developed by our members and proven successful in achieving NRC

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concurrence for the release of decommissioned reactor sites for unrestricted use by the public. Consequently, NEI is requesting that the report be treated as proprietary and that significant portions of NEI 22-01 be withheld from public disclosure pursuant to 10 CFR 2.390. In addition to the proprietary report, a non-proprietary version is attached for your use. To ensure broad industry access, NEI will make the document available to all NEI members and to non-NEI members for a reasonable fee. Thus, access to NEI 22-01 would not be limited to any arbitrary class of licensees.

If you have any questions on this matter, please contact me at bsm@nei.org.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Montgomery", with a long horizontal flourish extending to the right.

Bruce Montgomery

Attachments:

NEI 22-01 (proprietary)
NEI 22-01, Redacted (public)

Cc:

Mr. Bruce Watson, NMSS/DUWP
Mr. Cynthia Barr, NMSS/RTAB
Mr. Shaun Anderson, NMSS/DUWP/RDB
NRC Document Control Desk