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NUCLEAR ENERGY INSTITUTE

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Mr. Craig G. Erlanger
Director, Division of Fuel Cycle Safety, Safeguards & Environmental Review
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Mr. John R. Tappert
Director, Division of Decommissioning, Uranium Recovery, & Waste Programs
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Required Triennial Update of the Decommissioning Funding Plan

Project Number: 689

Dear Messrs. Erlanger and Tappert:

I am writing to express the Nuclear Energy Institute's[1] (NEI) concerns regarding recent positions taken by the U.S. Nuclear Regulatory Commission (NRC) staff on the completeness of triennial Decommissioning Funding Plan (DFP) updates submitted by some fuel cycle facilities, as well as the lack of an NRC timely review of the DFP submittals. NEI was made aware of this generic regulatory concern through its routine biweekly industry calls where such issues and operational event information are shared. We trust that the NRC will consider our views and would appreciate a public meeting on this matter in the near future.

Recent NRC Staff Position

Our understanding is that the staff seeks to require licensees to assume that a facility closes abruptly, and the licensee only has a short period of time following sudden shutdown to remove the special nuclear material (SNM) inventory prior to turning the facility over to a third-party contractor. Requiring licensees to provide financial assurance for such a decommissioning scenario is unreasonable and inconsistent with previous NRC practice. The staff has offered the June 2012 Decommissioning Planning Rule change that added 10 CFR 70.25(e)(1)(ii), requiring key assumptions to be justified, as well as 10 CFR 70.25(e)(2)(v) as the basis for this expectation. We fundamentally disagree with this justification.

[1] NEI is responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry, including regulatory, financial, technical and legislative issues. NEI members include all companies licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel fabrication facilities, materials licensees, and other organizations and individuals involved in the nuclear energy industry.

A typical key assumption for licensees is that inventory quantities of SNM, as opposed to contamination or residual radioactivity, will have been removed from the site prior to the start of decommissioning. Licensees have justified that these prerequisite licensed activities are performed using operational funds. Licensees have justified the use of these assumptions before the June 2012 rule change, and the NRC staff has accepted these assumptions. The NRC staff has now determined that this assumption and associated justification are insufficient, and yet, the abrupt shutdown and walk-away presumption is not specified in the regulation nor is it covered in NRC Regulatory Guide 4.22 or NUREG-1757 guidance. It is unclear how this unrealistic presumption has developed. The industry does not interpret the guidance in NUREG-1757, Volume 3, Section 2.1, for the initiation of the decommissioning process, as well as the need for "reasonable" assumptions discussed on page 4-10 of the guidance to require consideration of this walk-away scenario. Further, this NRC approach is an undesirable precedent for consideration of other unrealistic scenarios, making it unclear where such presumptions would end.

The staff seems to be imposing a new regulatory position, requiring licensees to modify a previously NRC-accepted assumption and to fund removal and disposition of UF_6 cylinders and other SNM products with decommissioning rather than operating funds. In support of its new position, the NRC staff suggests that justifying assumptions, including analyzing costs for unforeseen events, is a new requirement imposed by the 2012 decommissioning planning rule.[2] The staff implies that there was a substantive change to the rules in 2012 that justifies the staff's inconsistent treatment of licensee's DFP updates. Neither the 2012 rule, nor the relevant guidance, supports this assertion.

The Supplementary Information published with the 2012 final decommissioning planning rule clearly states that the rule simply codified methods for generating decommissioning cost estimates that were already recommended in the agency's regulatory guidance.[3] Further, with respect to justifying assumptions, identical language is found in both the original and revision 1 of Volume 3, NUREG-1757.[4] Both iterations of NUREG-1757, Volume 3 have identical language stating, "Key assumptions used in the decommissioning cost estimates should be identified and adequately justified."[5] Thus, the agency's guidance on developing decommissioning cost estimates called upon the licensee to justify key assumptions—both before and after that basic practice—was codified in the 2012 final rule.

The NRC staff's current perspective is a significant departure from previously approved decommissioning cost estimates and DFPs, with no corresponding regulatory basis to reflect why such a change is necessary and is inconsistent with current decommissioning requirements. Namely, 10 CFR 70.38 provides conditions

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[2] Final Rule, Decommissioning Planning, 76 Fed. Reg. 35512.

[3] 76 Fed. Reg. at 35527.

[4] *See* Consolidated Decommissioning Guidance, Financial Assurance, Recordkeeping, and Timeliness, NUREG-1757, Vol. 3, Rev. 1. (2012); *See* Consolidated NMSS Decommissioning Guidance, Financial Assurance, Recordkeeping and Timeliness, NUREG-1757, Vol. 3, Rev. 1 (2003).

[5] 2012 NUREG-1757, at A-25; 2003 NUREG-1757, at A-29.

when decommissioning begins at a site, i.e., a licensee has decided to permanently cease operations or no principle activities under the license have been conducted for a period of 24 months. If either of these are met, the "licensee shall provide notification to the NRC in writing and either begin decommissioning its site, or any separate building or outdoor area that contains residual radioactivity, so that the building or outdoor area is suitable for release in accordance with NRC requirements, or submit within 12 months of notification a decommissioning plan, if required by paragraph (g)(1) of this section, and begin decommissioning…"[6] The regulations imply an orderly shutdown, as opposed to an abrupt shutdown with the licensee walking away after a short time period to complete in-process material, remove SNM inventory, and clean-out equipment prior to turning the facility over to a third party contractor. Therefore, a licensee would only need reserve funds for licensed materials that it plans on being present at the end of principal activities, namely contamination and residual radioactivity. Ongoing material protection, storage and removal costs of inventory quantities of licensed materials are considered operational and not decommissioning.

The assumption being imposed by the staff is also inconsistent with the rule and related guidance provided in NUREG-1757. Licensees develop their DFP based on documented, reasonable and justified assumptions.[7] One criterion required for the DFP is "the cost of an independent contractor to perform all decommissioning activities."[8] Appendix A of NUREG-1757, Volume 3, Rev. 1, specifically expands upon what it means to include an estimate for decommissioning activities performed by an independent contractor stating:

> "The site-specific cost estimates required for a DFP must assume that the work will be performed by an independent third party and should represent the licensee's best approximation of all direct and indirect costs of decommissioning under *routine facility conditions*. The assumption that routine facility conditions will prevail at the time of decommissioning implies that the cost estimate *need not consider a worst-case decommissioning scenario.*"[9] (emphasis added).

The staff's proposed hypothetical—that the licensee abruptly closes and employees walk away, leaving the NRC to use a third-party contractor to perform proprietary licensed operations as part of decommissioning—is such a worst-case scenario. How such a scenario could be accomplished within the current NRC regulatory framework is difficult to imagine, and this is precisely the type of assumption the NUREG states need not be considered.[10] The NUREG also warns against basing the DFP on a more optimistic scenario than would be consistent with routine facility conditions.[11] The key assumption that inventory quantities of SNM

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[6] 10 C.F.R. § 70.38 (d).

[7] 10 C.F.R. § 70.25 (e)(1)(ii); *See also* 2012 NUREG-1757, at 4-10.

[8] 10 C.F.R. § 70.25 (e)(1)(i)(A).

[9] 2012 NUREG-1757, at A-22; *See also* 2003 NUREG-1757, A-26.

[10] *See* 2012 NUREG-1757, at A-22.

[11] *Id.*

are removed from the site prior to decommissioning is not an "optimistic scenario," but is a reflection of actual routine facility conditions and planning. This assumption is based on the fact that the customers who own the SNM will want it returned and will be responsible for removal; that independent contractors cannot operate proprietary equipment and processes to remove what SNM the licensee does own; and that removal of the SNM is pre-planned and paid for with operating funds. Based on NEI's discussions with fuel cycle facility representatives, some in the industry are concerned with the NRC's new position particularly in the absence of a safety concern or sound technical basis.

It is important to note that historically unexpected or unanticipated events are accounted for in the required 25% contingency factor included in decommissioning cost estimates.[12] The statements of consideration accompanying the Decommissioning Planning Rule[13] note that the contingency factor covers "unanticipated costs that can arise after the decommissioning project begins." Further, NUREG-1757 states, "this contingency factor should be retained to buffer against potential market losses and to provide for unexpected costs."[14] The 25% contingency requirement is the proper mechanism used to account for unforeseen events. Positing and requiring licensees to provide financial assurance in anticipation of worst-case decommissioning assumptions is unreasonable and is not supported by the agency's existing guidance and regulations. While it may be appropriate for the staff to request additional information to ensure that the licensee's key assumptions are justified, imposing new, worst-case assumptions via the RAI process is inappropriate.

Need More Timely NRC Review/Approval of DFP Submittals

On a related note, the industry is willing to work with the NRC to identify ways in which to reduce the time currently required for NRC review and approval of the DFP submittals including the inefficient Request for Additional Information process. We are aware that, at some fuel cycle facilities, it has taken the NRC years to make its final decision, leaving the licensee in a continual "do loop" as it tries to prepare its next triennial submittal in the absence of issues being fully resolved. Such a protracted timeline also requires a level of resource expenditure by the NRC and the licensee that is difficult to justify. In one case, the NRC has yet to make a decision on a DFP that was submitted in late 2012 and resubmitted in late 2015 because the NRC's expectations have evolved without clear feedback and transparent acceptance criteria being provided to the licensee. Further, the site operations and possession limits have not changed during this time. As stated, we are eager to identify ways to reduce the DFP review and approval timeline to be more consistent with other license amendments, e.g., six months or less.

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[12] 10 CFR § 70.25 (e)(1)(i)(D).

[13] *See* 76 FR 35512, page 35527.

[14] Consolidated Decommissioning Guidance, Decommissioning Process for Materials Licensees, NUREG-1757, Vol. 1, Rev. 2, at 17-83 (2006).

We appreciate your consideration of our views on this generic regulatory issue and would be happy to discuss our concerns in a public meeting in the near future.

Please feel free to contact me if you have any questions.

Sincerely,

Janet R. Schlueter

c: Mr. Scott W. Moore, NMSS, NRC
Margaret M. Doane, Esq., OGC, NRC
Mr. Mark S. Lesser, R-II/DFFI, NRC