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# PUBLIC SUBMISSION

**Docket:** NRC-2015-0070

Regulatory Improvements for Power Reactors Transitioning to Decommissioning

**Comment On:** NRC-2015-0070-0178

Regulatory Improvements for Power Reactors Transitioning to Decommissioning; Request for Comment on Draft Regulatory Basis

**Document:** NRC-2015-0070-DRAFT-0216

Comment on FR Doc # 2017-05141

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## Submitter Information

**Name:** Mark Richter

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## General Comment

See attached file(s)

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## Attachments

06-13-17\_NRC\_NEI Comments on Regulatory Improvements for Power Reactors Transitioning to Decommissioning

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NUCLEAR ENERGY INSTITUTE

June 13, 2017

Ms. Annette Vietti-Cook  
Secretary  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
ATTN: Rulemakings and Adjudications Staff

**Subject:** NEI Comments on the NRC Draft Regulatory Basis Document Regulatory Improvements for Power Reactors Transitioning to Decommissioning; Docket ID: NRC-2015-0070

**Project Number: 689**

Dear Ms. Vietti-Cook:

On March 15, 2017, the U.S. Nuclear Regulatory Commission (NRC) issued a notice in the *Federal Register* soliciting public comments on the agency's draft Regulatory Basis Document (RBD) for a rulemaking proposing changes to the Commission's decommissioning regulations.<sup>1</sup> Subsequently, on May 9, 2017, the NRC issued a notice soliciting public comments on a preliminary draft regulatory analysis that supports the RBD.<sup>2</sup>

This letter and the associated attachments provide the comments of the Nuclear Energy Institute (NEI)<sup>3</sup> on behalf of the nuclear energy industry, on both the RBD and the

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<sup>1</sup> 82 *Fed. Reg.* 13, 778 (March 15, 2017); "Regulatory Improvements for Power Reactors Transitioning to Decommissioning: Draft Regulatory Basis," March 2017 ("Draft Regulatory Basis").

<sup>2</sup> 82 *Fed. Reg.* 21,481 (May 9, 2017).

<sup>3</sup> 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.

preliminary draft regulatory analysis. In general, our review concludes that these draft documents provide a sound foundation for several regulatory improvements that would, if implemented, achieve the objective stated in NRC's Advanced Notice of Proposed Rulemaking (ANPR),<sup>4</sup> which is "to implement appropriate regulatory changes that reduce the number of licensing actions needed during decommissioning"<sup>5</sup>. The recommendations made in the draft RBD are generally consistent with the proposal contained in NEI's comments on the ANPR<sup>6</sup>. Our specific comments fall into five categories, as delineated below.

*1. NEI Responses to Questions Posed in the Federal Register Notice*

The NRC asked five general questions in the *Federal Register* notice.<sup>7</sup> NEI's responses to questions 1-5 are provided in Attachment 1. NEI's responses to the remaining questions presented in the *Federal Register* notice are provided in the relevant sections of Attachment 2 to this letter.

*2. NEI Comments on Subject-Matter Areas to be Addressed in Rulemaking*

NEI agrees with the NRC that there is a sound regulatory basis for rule changes to improve the efficiency of the transition from operations to decommissioning in the areas of Emergency Preparedness, Physical Security, Decommissioning Trust Funds, Financial Protection/Indemnity, and application of the Backfitting Rule, as discussed in Appendices A, B, F, G, and I of the draft RBD. NRC's recommendations in these subject-matter areas are generally consistent with the rulemaking proposal that NEI submitted in its March 17, 2016 comments on the NRC's Advanced Notice of Proposed Rulemaking (ANPR).<sup>8</sup> The recommendations contained in NEI's comments on the ANPR reflected lessons-learned from the numerous licensing actions that have been approved by the NRC (*i.e.*, license amendments and exemptions) for plants that have recently shut down, and experience since has continued to reinforce these lessons.

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<sup>4</sup> 80 *Fed. Reg.* 72,358 (November 19, 2015).

<sup>5</sup> 80 *Fed. Reg.* 72,361 (November 19, 2015).

<sup>6</sup> Letter, from R. McCullum (NEI) to A. Vietti-Cook (NRC), *Industry Comments on the NRC Advance Notice of Proposed Rulemaking (ANPR) on Regulatory Improvements for Decommissioning Power Reactors* (March 17, 2016) ("NEI ANPR Comments").

<sup>7</sup> 82 *Fed. Reg.* 13,779.

<sup>8</sup> See NEI ANPR Comments.

While NEI is supportive of NRC's recommendations in the five areas listed above, our comments also address areas where we believe there are opportunities for the NRC to further clarify and improve the RBD. These opportunities are addressed, along with answers to the subject-matter specific questions posed in the draft RBD, in our specific comments on Appendices A, B, F, G, and I in Attachment 2 to this letter. For example, in the attached comments on Appendix G (Financial Protection and Indemnity Agreements) we recommend a more complete description of the levels at which the requirements for financial protection and indemnity can be adjusted. More fully delineating levels of financial protection appropriate at given points in the decommissioning process tracks more closely with the agency's basis for adjusting financial protection requirements. The more complete description of the levels used to transition financial protection requirements is also explained in our comments on Appendix A (Emergency Preparedness), although it does not directly affect the emergency preparedness requirements being proposed by NEI.

NEI also notes that NRC is now recommending rulemaking in two areas not previously addressed in the ANPR: (1) contents of the Post-Shutdown Decommissioning Activities Report (PSDAR), and (2) license amendments for non-power reactors. On the first recommendation, we do not agree with the proposed new requirement for the PSDAR to contain a description of how spent fuel managed pursuant to a general independent spent fuel storage installation (ISFSI) license will be removed from the reactor site. The comments on Appendix H in Attachment 2 contain the details of our position on this issue. On the second recommendation, we agree that the regulations should be amended to clarify that the requirement for a license amendment prior to commencement of decommissioning activities applies only to non-power reactors.

### 3. *NEI's Position on the Applicability of the Amended Regulations*

As stated in our comments on the ANPR, licensees who are in the process of decommissioning (including those at an advanced stage of decommissioning in a "standalone" ISFSI configuration) should be permitted to choose between either continuing to comply with their current licensing basis, or transitioning to the new generic requirements.<sup>9</sup> It is imperative that this rulemaking not impose additional regulatory burdens on plants that have already completed the transition to

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<sup>9</sup> NEI ANPR Comments, at Attach. 1, pgs. 3-5.

decommissioning or the decommissioning process itself. There is simply no safety or security basis to impose (*i.e.*, backfit) any new or different requirements on such licensees as a result of this rulemaking.

The draft RBD explains the applicability of the proposed decommissioning requirements as applying to "power reactors that permanently shut down and defuel and enter into decommissioning after the effective date of the final rule."<sup>10</sup> It goes on to state, however, that the proposed requirements would apply to "nuclear power plants currently licensed under 10 CFR Part 50,"<sup>11</sup> among other types of licensees. These statements are internally inconsistent in that some power reactors have already permanently shut down, defueled, and entered into decommissioning, yet they still retain their Part 50 licenses (*e.g.*, Maine Yankee). It appears that the NRC does not intend to impose the new requirements on current Part 50 possession-only licensees, or other Part 50 licensees that have permanently shut down and defueled prior to the effective date of the final rule. The NRC should clarify its explanation of applicability to clearly communicate that the regulatory changes being proposed: (1) will serve as an alternative to the legally binding requirements currently applicable to facilities that have shut down and defueled prior to the effective date of the final rule, and (2) will not be imposed on power reactor licensees that have shut down and permanently defueled prior to the effective date of the final rule, even if they have retained a Part 50 license.

#### 4. NEI's Comments on Subject-Matter Areas Open to Further Consideration

NEI notes that NRC has left the question of whether or not to pursue rulemaking in the areas of Cyber Security, Drug and Alcohol Testing, Minimum Staffing and Training for Certified Fuel Handlers, Aging Management, and Fatigue Management open to additional stakeholder input. NEI provided proposals for rule changes in many of these areas in its March 2016 comments on the ANPR. The comments included in Attachment 2 on Appendices C, D, E, J, and K respond to the information presented in the draft RBD on these topics.

In this vein, the draft RBD reveals that the NRC staff is considering imposing additional substantive requirements – beyond those necessary to achieve NRC's stated objective

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<sup>10</sup> Draft Regulatory Basis, pg. 33.

<sup>11</sup> *Id.*

of improving the efficiency of the transition through the decommissioning process – in areas such as, cyber security (*i.e.*, extending applicability of cyber security requirements) and decommissioning funding (*i.e.*, requiring licensees to develop and maintain site-specific decommissioning cost estimates in lieu of using the minimum formula amount). NEI opposes any new requirements that are not consistent with the stated objective of the rulemaking. As a general matter, we also wish to emphasize that any amendments to the NRC’s regulations that would *require*<sup>12</sup> existing licensees to “modif[y] . . . or [add] to systems, structures, components, or design of a facility . . . or the procedures or organization required to design, construct or operate a facility”<sup>13</sup> must comply with the agency’s backfitting and issue finality provisions. From a timing perspective, the backfitting implications associated with imposing such additional requirements should be addressed before they are included in a proposed rule. Specific feedback on those provisions is also included in the attached comments on each Appendix.

#### *5. NEI Comments on Subject-Matter Areas Not Addressed in Rulemaking*

NEI also commends NRC for not recommending rulemaking in areas that are not directly related to the stated objective of this rulemaking. NEI does, however, have a number of concerns regarding the recommendations provided in Appendix H (“Current Regulatory Approach to Decommissioning”). Specifically, while not recommending rulemaking, Appendix H recommends changes to NRC guidance in areas – such as the content of PSDARs, the 60-year timeframe for decommissioning, and the role of state and local governments in the decommissioning process. In each of these areas, the NRC concludes that there are no additional health and safety benefits associated with pursuing rulemaking. Further, there is no information in the draft RBD indicating that any changes in these areas – whether in guidance or rulemaking – would further the

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<sup>12</sup> The NRC’s long-standing backfitting guidance states:

The backfit rule applies to actions that impose positions or requirements on licensees; it does not apply to requested actions that are optional or voluntary. Generally, it does not apply to relaxations. However, if requirements are reduced but made mandatory, the backfit rule would apply if licensees are required to make the changes in order to achieve a greater level of safety.

Backfitting Guidelines,” NUREG-1409, at pg. 2 (July 1990)(footnotes omitted). The charter of the Committee to Review Generic Requirements (CRGR) provides additional context on “voluntary relaxations” and “voluntary actions,” which do not meet the definition of backfitting. “Charter: Committee to Review Generic Requirements,” Rev. 8, at FN 5 (March 2011).

<sup>13</sup> 10 CFR 50.109(a)(1). The definitions of backfitting contained in 10 CFR 70.76, 72.62, and 76.76 are generally consistent with the definition in 10 CFR 50.109(a)(1). In addition, the issue finality provision applicable to combined license holders in 10 CFR 52.98 references the requirements of 10 CFR 50.109.

Ms. Annette Vietti-Cook

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stated purpose of the rulemaking, or improve the NRC's ability to fulfill its regulatory imperatives with respect to plants undergoing decommissioning. Therefore, NEI does not believe that any additional resources should be devoted to the activities discussed in Appendix H and we have provided specific comments in Attachment 2 to further explain our position.

*6. NEI's Initial Response to NRC's Preliminary Draft Regulatory Analysis*

As noted above, the NRC made the preliminary draft regulatory analysis available for public comment on May 9, 2017. Given the limited availability of the draft preliminary regulatory analysis during the comment period (just over 30 days), we are providing high-level, summary comments as well as comments on specific aspects of the regulatory analysis document, where relevant, in Attachment 3. We appreciate the opportunity to comment on the preliminary draft regulatory analysis and look forward to reviewing and commenting in more detail on the draft regulatory analysis published with the proposed rule.

In sum, NEI strongly urges the agency to continue on a path of completing a rulemaking to improve the efficiency of the transition from operations to decommissioning as expeditiously as possible. We continue to encourage NRC to utilize the proposal we submitted in response to the ANPR in developing the final rule language. In the meantime, it continues to be important that NRC staff remain committed to the timely review of exemptions and license amendments that are necessary until this rulemaking can be completed.

Thank you for the opportunity to provide NEI's views in response to the Draft RBD. If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,



Rod McCullum

Attachments

# **ATTACHMENT 1**

## **Attachment 1 – Federal Register Notice General Questions 1 through 5**

NRC has asked five general questions in the Federal Register notice.<sup>1</sup> NEI responses to questions 1-5 are provided below. Responses to the remaining questions presented in the Federal Register notice are provided in the relevant sections of Attachment 2 to this letter.

### ***Question 1 - Is the NRC considering appropriate options for each regulatory area described in the draft regulatory basis?***

The NRC is *considering* the correct options at this point in the rulemaking. But the industry strongly believes that the NRC should not further pursue changes in regulatory areas that would not advance the primary objective of this rulemaking, which is “to implement appropriate regulatory changes that reduce the number of licensing actions needed during decommissioning.”<sup>2</sup> Rather, as the NRC has already concluded that the current regulations provide for adequate protection of public health and safety and the common defense and security, the agency should proceed with a rulemaking to appropriately align the regulations applicable to reactors undergoing decommissioning with the reduced risk profile associated with those facilities. This rulemaking should establish an efficient and effective means to streamline the requirements for the decommissioning process.

### ***Question 2 - Are there additional factors that the NRC should consider in each regulatory area? What are these factors?***

Consistent with the primary objective of this rulemaking, NRC should remain focused on increasing the efficiency of the decommissioning process by reducing the number of licensing actions need during decommissioning. In order to achieve this objective, the rulemaking should remain largely focused on areas where exemptions and other licensing actions have been necessary to modify the regulatory framework to correspond to changes in the risk profile of facilities that have permanently shut-down and defueled. Completing an appropriately scoped rulemaking will increase the efficiency and transparency of the decommissioning process, while continuing to provide adequate protection of public health and safety and the common defense and security. Thus, we do not believe that there are additional substantive factors that should be considered in each regulatory area.

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<sup>1</sup> 82 *Fed. Reg.* 13,779.

<sup>2</sup> 80 *Fed. Reg.* 72,361 (November 19, 2015).

***Question 3 - Are there any additional options that the NRC should consider during the development of the proposed rule?***

As stated above in response to Questions 1 and 2 above, the industry strongly believes that the NRC should appropriately focus the scope of the rulemaking on changes that improve the efficiency of the transition to decommissioning. To that end, industry provided the NRC with detailed recommendations on rule changes that would achieve this objective in its March 2016 comments on the Advanced Notice of Proposed Rulemaking, and we have refined several of those recommendations in response to the information provided in the draft regulatory basis document (RBD).<sup>3</sup> Changes that are not focused on reducing the number of exemptions and license amendments necessary to transition through the decommissioning process, or otherwise improving regulatory efficiency, should not be included in the proposed rule. Additional options that are consistent with the primary objective of this rulemaking and which industry believes should be considered are discussed in the comments on Appendices A-K.

***Question 4 - Is there additional information concerning regulatory impacts that NRC should include in its regulatory basis for rulemaking?***

It is important that NRC more fully address the backfitting implications of the specific regulatory changes that are discussed in the draft RBD. For example, there are amendments to the Commission's regulations discussed in several sections of the draft RBD that would require the "modification of or addition to systems, structures, components, or design of a facility . . . or the procedures or organization required to design, construct or operate a facility."<sup>4</sup> Further, these proposed amendments are described in mandatory terms, rather than as being "optional" or "voluntary" alternatives to existing requirements.<sup>5</sup> Examples of such requirements include:

- *Cyber Security*: Appendix C discusses several amendments to the NRC's cyber security rules that would impose backfits on current licensees. Specifically, the discussion in Appendix C states that "[t]he NRC staff has determined that once

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<sup>3</sup> "Regulatory Improvements for Power Reactors Transitioning to Decommissioning: Draft Regulatory Basis," March 2017 ("Draft Regulatory Basis").

<sup>4</sup> 10 CFR 50.109(a)(1).

<sup>5</sup> The NRC's long-standing backfitting guidance states:

The backfit rule applies to actions that impose positions or requirements on licensees; it does not apply to requested actions that are optional or voluntary. Generally, it does not apply to relaxations. However, if requirements are reduced but made mandatory, the backfit rule would apply if licensees are required to make the changes in order to achieve a greater level of safety.

Backfitting Guidelines," NUREG-1409, at pg. 2 (July 1990)(footnotes omitted). The charter of the Committee to Review Generic Requirements (CRGR) provides additional context on "voluntary relaxations" and "voluntary actions," which do not meet the definition of backfitting. "Charter: Committee to Review Generic Requirements," Rev. 8, at FN 5 (March 2011).

the NRC has docketed a licensee's 10 CFR 50.82 or 10 CFR 52.110 certifications, 10 CFR 73.54 no longer applies to that licensee because the licensee is no longer authorized to operate a nuclear power plant."<sup>6</sup> The draft RBD goes on to discuss several rulemaking options that would, however, impose cyber security requirements on licensees that have docketed certifications under 50.82 and 52.110. The proposed changes would extend applicability of NRC's cyber security rules beyond the time when a reactor permanently ceases operation and defuels, but the staff dismisses the backfitting implications of such a change because the cyber security rulemaking required holders of operating licenses to incorporate conditions into their licenses addressing cyber security programs. The draft RBD states that because the license conditions continue to apply, amending the cyber security rules to apply to licensees that have permanently defueled does not constitute backfitting. The NRC should reconsider this position. It is clear, and the staff concedes, that the current cyber security requirements in 10 CFR 73.54 do not apply to plants that have docketed the certifications required by 10 CFR 50.82 and 52.110. By operation of the rules, such licensees are no longer authorized to operate the reactor or place fuel in the reactor vessel. The fact that implementation of the cyber security rule – when the rule was applicable – required holders of operating licenses to incorporate license conditions should not be used to avoid conducting a full backfitting analysis on amendments that would significantly change the applicability of the Commission's cyber security rules.

- *Decommissioning Funding.* Appendix F discusses (although does not recommend) amending the Commission's regulations to require current and future licensees to develop and update site-specific decommissioning cost estimates in lieu of using the table of minimum amounts provided in 10 CFR 50.75(c) to determine the amount required to demonstrate adequate decommissioning funding assurance.<sup>7</sup> Although the potentially significant burden associated with this option is discussed in the preliminary draft regulatory analysis document,<sup>8</sup> neither the draft RBD nor the regulatory analysis documents identify this amendment as a backfit or discuss whether this proposed change would meet the analytical requirements in 10 CFR 50.109.

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<sup>6</sup> Draft Regulatory Basis, at pg. C-2.

<sup>7</sup> Draft Regulatory Basis, at pg. F-11.

<sup>8</sup> "Preliminary Draft Regulatory Analysis for Regulatory Basis: Regulatory Improvements for Decommissioning," May 2017, at pgs. 61, 115.

These examples illustrate why it is important for NRC staff to carefully evaluate any proposed amendments to the Commission's regulations that would require the "modification of or addition to systems, structures, components, or design of a facility . . . or the procedures or organization required to design, construct or operate a facility,"<sup>9</sup> and that do not fall within the agency's long-standing position on changes that provide licensees with additional compliance options or that relax existing requirements,<sup>10</sup> pursuant to the requirements of 10 CFR 50.109.

***Question 5 - Should the NRC address the exemption of 50.38 for licensees of facilities in decommissioning on a generic basis as a part of this rulemaking? If so, why, and how should the NRC address this issue?***

Yes. NEI included a suggested revision to 10 CFR 50.38 in its comments on the ANPR.<sup>11</sup> The revision described in our ANPR comments closely tracked a 2013 exemption granted by the NRC to the Yankee Companies.<sup>12</sup> Consistent with this exemption, NRC should, at a minimum, amend the regulation to make clear that it does not apply to licensees that have completed the decommissioning process and removed all spent fuel to an independent spent fuel storage installation.<sup>13</sup>

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<sup>9</sup> 10 CFR 50.109(a)(1).

<sup>10</sup> Backfitting Guidelines," NUREG-1409, at pg. 2 (July 1990)(footnotes omitted). The charter of the Committee to Review Generic Requirements (CRGR) provides additional context on "voluntary relaxations" and "voluntary actions," which do not meet the definition of backfitting. "Charter: Committee to Review Generic Requirements," Rev. 8, at FN 5 (March 2011).

<sup>11</sup> Letter, from R. McCullum (NEI) to A. Vietti-Cook (NRC), *Industry Comments on the NRC Advance Notice of Proposed Rulemaking (ANPR) on Regulatory Improvements for Decommissioning Power Reactors* (March 17, 2016) ("NEI ANPR Comments"), at Attach. 2, pgs. 76-77.

<sup>12</sup> See Letter from M. Lombard to W. Norton, Request for Exemption from Title 10 of the Code of Federal Regulations 50.38 Requirements for Maine Yankee Atomic Power Company, Connecticut Yankee Atomic Power Company, and Yankee Atomic Electric Company – (TAC Nos. L24538, L24565, and L24566), Encl. at 5 (July 15, 2013) [hereinafter Yankee Exemption] (ML13086A010); (The exemption was also published in the Federal Register. See Exemption, "Maine Yankee Atomic Power Company, Connecticut Yankee Atomic Power Company, and The Yankee Atomic Electric Company," 78 FR 58,571, 58,572 (Sept. 24, 2013)).

<sup>13</sup> Our comments here are limited to application of the FOCD requirements at 10 CFR 50.38. However, we believe it is important to underscore our concern expressed in parallel NRC rulemaking efforts that NRC inimicality reviews avoid becoming duplicative FOCD analyses. See Letter from E. Ginsberg (NEI) to C. Bladey (NRC), Comments of the Nuclear Energy Institute on the NRC "Draft Standard Review Plan on Foreign Ownership, Control, or Domination, Rev. 1" and the NRC's "Draft Regulatory Guide for Foreign Ownership, Control, or Domination of Nuclear Power, and Non-power Production or Utilization Facility" (July 25, 2016), at Encl. pg. 4 n. 8.

That concern is particularly relevant when — as has been the case in the past — the transfer of control is over both a facility licensed under 10 CFR Part 50 or 52 that is undergoing decommissioning and the ISFSI (licensed under 10 CFR Part 72) to which its SNM was removed. Current NRC guidance and practice contemplate that inimicality reviews associated with the transfer of control of an ISFSI containing SNM incorporate an FOCD analysis. See "Consolidated Guidance about Materials Licenses: Guidance about Changes of Control and about Bankruptcy

NEI also believes that the changes to the regulations in this area could go further. Specifically, 10 CFR § 50.38 could be revised to clearly state that the Foreign Ownership, Control, or Domination (“FOCD”) requirements do not apply to any nuclear power reactor facility that is undergoing decommissioning where the licensee has certified permanent cessation of operations and permanent removal of fuel from the reactor core. Once these certifications are made, 10 CFR § 50.82(a)(2) provides that the “license no longer authorizes operation of the reactor or emplacement or retention of the fuel into the reactor vessel.” Thus, as a matter of law, neither the utilization nor the production of special nuclear material (“SNM”) is authorized. In order to assure that it is physically not possible to conduct reactor operations, the modification to § 50.38 could also provide that the licensee must also alter the reactor such that the plant cannot resume activities that would result in production or utilization of SNM without noticeable plant modification activities; for example, removal of the fuel loading system and equipment.

The AEA defines production and utilization facilities as those that are capable of “the production of” (production facility) or “making use of” (utilization facility) SNM in certain quantities and manners.<sup>14</sup> Nuclear power reactors are constructed and then operate with such capabilities. However, when those facilities shutdown, their licenses no longer authorize operation of the reactor. The NRC should codify in 10 CFR § 50.38 that its interpretations of the AEA’s definitions of “production facility” and “utilization facility” recognize the bright line between facilities being constructed to become operating reactor facilities and operating reactor facilities, which satisfy the AEA criteria for production and utilization facilities, versus permanently shut down and defueled facilities, which are not intended to return to operation.

NRC regulations require Part 50 licensees to submit written certifications “[w]hen a licensee has determined to permanently cease operations,” and again, “[o]nce fuel has been permanently removed from the reactor vessel.”<sup>15</sup> As explained in 10 CFR § 50.82(a)(2):

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Involving Byproduct, Source, or Special Nuclear Materials Licenses,” NUREG-1556 Vol. 15 Rev. 1 at pgs. B-2 to B-3 (June 2016); NRC, Safety Evaluation by the Office of Nuclear Material Safety and Safeguards, “PacifiCorp Trojan Independent Spent Fuel Storage Installation, Docket No. 72-17” (Oct. 27, 2015)(ML053630326), at pgs. 3-4.

NEI respectfully submits that the logic for the inapplicability of the 10 CFR 50.38 FOCD requirements to a facility that has permanently ceased operation and defueled, also militates against incorporating FOCD analyses within ininitiality reviews for the transfer of Part 50/52 and Part 72 licenses. Specifically, in either case, the NRC’s assumption that such FOCD analyses are necessary because a licensee will intentionally violate its legal obligations has been resoundingly rejected by Commission precedent.

<sup>14</sup> AEA §§ 11v (production facility); 11cc (utilization facility).

<sup>15</sup> 10 CFR 50.82(a)(1).

Upon docketing of the certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel . . . the 10 CFR part 50 license no longer authorizes operation of the reactor or emplacement or retention of fuel into the reactor vessel.

Thus, by operation of law, a permanently defueled facility is no longer capable of producing or making use of SNM. Although the Yankee facilities (discussed above) had been dismantled, the basis for their exemption request was that the "*conditions of the licenses* do not allow their use as a production or utilization facility, and they are therefore not subject to Sections 103d. or 104d. of the AEA."<sup>16</sup> The NRC agreed that such facilities were neither production nor utilization facilities.<sup>17</sup>

The appropriate inquiry is whether the facility legally is capable of producing or making use of SNM; it is not relevant whether, theoretically, a licensed facility could be operated unlawfully. It is contrary to NRC policy to assume that a licensee will intentionally violate its legal obligations.<sup>18</sup> Accordingly, 10 CFR § 50.38 could be amended as follows: Any person who is a citizen, national, or agent of a foreign country, or any corporation, or other entity which the Commission knows or has reason to believe is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government, shall be ineligible to apply for and obtain a production or utilization facility license. This section does not apply to any facility license where the certifications for permanent cessation of operations and for permanent removal of fuel from the reactor vessel has been docketed pursuant to 10 CFR § 50.82(a), and the licensee is no longer authorized to operate; provided, however, that the licensee has made alterations to the plant equipment that results in preventing the resumption of activities to produce or utilize SNM without significant plant alterations.<sup>19</sup>

Once the licensee has made certifications that it has permanently ceased operations and permanently removed fuel from the reactor vessel, the licensee is no longer authorized to operate, and as such, as a matter of law the license no longer authorizes the utilization or production of SNM. The proposed change also provides that the licensee must alter the plant in such a way that the plant cannot resume SNM production or utilization activities. With substantive alteration to the physical plant

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<sup>16</sup> Yankee Exemption, Encl. at 2; (emphasis added); *see also* 78 FR at 58,752 (citing same).

<sup>17</sup> *Id.*, Encl. at 4.

<sup>18</sup> *See, e.g., Pac. Gas & Elec. Co.* (Diablo Canyon Nuclear Power Plant, Units 1 & 2), CLI-03-2, 57 NRC 19, 29 (2003).

<sup>19</sup>As described above, a more limited change to 10 CFR 50.38, which would eliminate the FOCD once a 10 CFR Part 50 licensee has completed the decommissioning process and removed all spent fuel to an independent spent fuel storage installation, is provided in NEI's comments on the NRC's ANPR. *See* NEI ANPR Comments, at Attach. 2, pgs. 76-77.

(e.g., removal of the fuel up-ender), the licensee is also physically unable to reload the reactor, so that the facility is incapable of utilizing or producing SNM without physically altering the plant to re-establish the incapacitated plant equipment changes. Efforts to re-establish the plant equipment would be visible from the exterior of the reactors and noticeable during NRC periodic inspections during decommissioning.

## **ATTACHMENT 2**

## Appendix A – Emergency Preparedness

### Overview

The NRC has proposed a change to the regulations to apply graded standards for Emergency Preparedness. NEI agrees that there should be explicit regulatory provisions distinguishing emergency preparedness (EP) requirements for a power reactor that has permanently ceased operations from those for an operating power reactor. The provisions should be determined using science-based and technically sound assumptions, methodologies and acceptance criteria, rather than assessments involving subjective or indeterminate characterizations of risk. For this reason, NEI supports a graded approach to EP that reflects the rigorously determined reductions in radiological risk at four distinct stages, or levels, of decommissioning. While the naming conventions for each level are different than what NEI proposed in our response to the ANPR, they are substantively the same.<sup>20</sup>

- Level 1 – *Post Shutdown Emergency Plan* – entered upon permanent cessation of operations and removal of all fuel from the reactor vessel
- Level 2 – *Permanently Defueled Emergency Plan* – entered when fuel in the SFP has sufficiently decayed such that it would not reach ignition temperature within 10 hours under adiabatic heat-up conditions
- Level 3 – *All Fuel transferred to ISFSI* - The basis for the differentiation of the sub-levels within Level 3 is included in Appendix G. There are no regulatory transitions for Emergency Planning between levels 3A and 3B. The sub-levels are listed in this section to maintain consistency with the levels described in Appendix G.
  - 3A and 3B: *All Fuel Transferred to ISFSI, but plant still in decommissioning* – entered after all fuel is in dry storage.
  - 3C: *Stand-Alone ISFSI, plant decommissioning complete* – entered when all spent fuel is in dry storage, decommissioning of the reactor site(s) is complete in accordance with its License Termination Plan and the requirement of 10 CFR 20.1402, and the NRC has released the lands, not associated with the ISFSI, from the 10 CFR Part 50 License in accordance with 10 CFR 50.83.

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<sup>20</sup> Draft Regulatory Basis, at pg. A-16.

- Level 4 – *No Emergency Planning* – entered following removal of all fuel from the site.

## **Spectrum of Accidents**

Maintaining consistency with the approach used for other facilities regulated by the NRC, the rationale supporting the EP planning basis for a decommissioning nuclear power plant site should consider the potential offsite radiological consequences for a spectrum of accidents, informed by probability considerations. Likewise, the planning basis elements needed to scope the planning effort should include the distance within which planning is warranted, the type of radioactive materials that may be released, and the time dependent characteristics of potential releases in relationship to the time needed to implement protective actions. The development of an EP planning basis for a decommissioning site should start with recognition that the spectrum of accidents potentially leading to offsite radiological consequences is greatly reduced, relative to an operating power reactor facility.

## **Assessment of 10-hour Timeframe for Permanently Defueled Emergency Plans**

The licensee may transition to a Permanently Defueled Emergency Plan after it has submitted the certification of permanent removal of fuel from the reactor vessel pursuant to § 50.82 or § 52.110 and performed a Qualifying Analysis. Qualifying Analysis means an analysis, conducted using a method approved by NRC for the intended application, that demonstrates that given the calculated amount of radioactive decay, there is no design basis accident that would require protective actions to the public and also demonstrates that the licensee is capable of mitigating an NRC-approved beyond design basis accident scenario such that protective actions to the public are not required. Qualifying Analysis as used here and in NEI's comments on the ANPR, is the same as the NRC term "site-specific" analysis.<sup>21</sup>

NEI notes that the assumed conditions for determining the 10-hour heat-up time are very conservative because adiabatic conditions that NRC has previously determined would occur less than once in 10 million years<sup>22</sup>. In addition, the final regulatory basis should acknowledge that this period does not include the time from the initiating event to the point where spent fuel cooling is lost, a time during which operators could take actions to maintain cooling. Further, the total time available to implement offsite response actions, if necessary, would also include the time needed for plume initiation and arrival.

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<sup>21</sup> Letter, from R. McCullum (NEI) to A. Vietti-Cook (NRC), Industry Comments on the NRC Advance Notice of Proposed Rulemaking (ANPR) on Regulatory Improvements for Decommissioning Power Reactors (March 17, 2016) ("NEI ANPR Comments"), at Attach 2, pg. 52.

<sup>22</sup> NUREG 2161, September 2014



## **Licensee Supporting Analyses and Commitments**

NEI suggests that certification should not be needed if generic (Appendix A, Option 2 Table 1) cooling times are used. Certification of implementation of mitigation strategies, which are currently required by Order and/or rule, would add no value, since implementation has presumably been previously verified by NRC inspection.

Certification of DBA analysis should not be necessary because the results of the analysis should be included in UFSAR updates required by 10 CFR 50.71(e).

## **Timeframe for Taking Protective Actions**

NEI agrees with the proposed 10-hour heat-up criterion to distinguish between Level 1 and Level 2 EP requirements. To enter Level 2, a licensee must be able to implement mitigation measures within this timeframe.

The draft RBD states “One alternative that the NRC staff could pursue in the proposed rule is the development of a chart that defines minimum cooling time as a function of fuel type, burnup, and enrichment for inclusion in the regulations.” NEI supports this option.

## **Level 1: Post Shutdown Emergency Plan**

Following the permanent cessation of operations, offsite response agency officials will continue to take actions, if needed, to protect public health and safety during an emergency at a decommissioning site, as would happen for an emergency affecting any other industrial site. These actions are highly likely to be successful as NRC research has indicated that there is no statistical association between the type of command, control, and coordination process (i.e., ad hoc or preplanned) and evacuation efficiency. Extensive pre-planning, while beneficial, is not a prerequisite for public safety officials to be able to decide upon and implement protective measures for the health and safety of the public. In the case of a decommissioning site, the total time available to implement offsite response actions, if necessary, is greater than 10 hours.

### *Staffing and Emergency Response Organization*

The draft RBD states “the NRC staff is considering changes to the guidance on ERO staffing levels for Level 1”. NEI believes that final ERO staffing requirements and guidance should be reflect the ERO staffing described in recently approved License Amendment Requests; additional guidance in support of establishing these staffing levels would be helpful.

### *Emergency Action Levels and Emergency Classification Levels*

NEI agrees that it would be helpful for the staff to provide specific guidance related to how EAL schemes can be revised for a Level 1 application without prior approval by the NRC.

### *Hostile Action Requirements*

NEI agrees with NRCs proposal to remove the HAB exercise requirement from the 8-year exercise cycle starting in Level 1.

### **Level 2: Permanently Defueled Emergency Plan**

Following entry into Level 2, there would be no scientific or technical basis for maintaining formal offsite radiological emergency plans and REP programs for a site; therefore, such plans and programs should no longer be required. Consequently, findings and determinations on the state of offsite EP from either the NRC or FEMA should no longer be required in order for the NRC to make licensing determinations regarding reasonable assurance under 10 CFR 50.54(s)(2)(ii). We support a change to clarify that 10 CFR 50.54(s)(3) applies only to sites required to have offsite REP programs by regulation; the change should be generally applicable and not specific to decommissioning sites.

### *Staffing and Emergency Response Organization*

NEI recommends adding CFH to line items that have a Shift Supervisor or Shift Operator to be consistent with 10 CFR 50.54(y) and proposed changes to 10 CFR 73.55(p). Also, the on-shift requirement during an emergency appears to be inconsistent with the proposed change to 10 CFR 50.54(m) for a CFH and NLO described in Appendix E Option 3.

### *Emergency Assessment, Classification, and Declaration*

The draft RBD with respect to Level 2 emergency declaration states "The exact timeframe that will be required for emergency declaration for licensees in Level 2 is still under consideration by the NRC staff and will be provided at the proposed rule stage; however, the NRC staff concludes that this time should not exceed 60 minutes." NEI supports a time of 60 minutes for declaration.

### *Offsite Response Organization Participation in Drills and Exercises*

The draft RBD states for Level 2 "ORO participation in radiological drills and exercises would no longer be required for licensees in Level 2, although licensees in Level 2

would be required to offer OROs the opportunity to participate.” The final regulatory basis should make clear that voluntary drill and exercise participation by an offsite response agency does not constitute a limited continuation or extension of the offsite REPP (i.e., in Level 2, a drill, or exercise with offsite agency participation is not a REPP drill or exercise).

Another change suggested under Option 2 would encourage licensees to include “[a] discussion of how the licensee would maintain stewardship and compliance with all Federal, State and local regulations in effect during decommissioning, including non-radiological effluent releases, waste management, environmental monitoring, emergency planning considerations, and environmental statutes such as the Endangered Species Act and National Historic Preservation Act.” Requiring or “encouraging” licensees to provide a description of how they will comply with all federal, state, and local regulations that apply or may come into existence during a decommissioning process that could span decades is overly broad and unnecessary. As stated above, the NRC’s guidance on the information to be included in the PSDAR should be based on what information the agency needs fulfill its regulatory mandate. Information on how the licensee will comply with regulatory requirements that do not directly affect the NRC’s regulatory decision-making, or the agency’s safety-focused oversight of the decommissioning project is simply not relevant, and the licensee should not be required or “encouraged” to include such information in the PSDAR.

### **Level 3: All Spent Fuel Transferred to an ISFSI**

The draft RBD states “A licensee maintaining its Part 50 or 52 license may opt to make changes to its EP program to align it with the requirements of 10 CFR 72.32 once all spent fuel is transferred to an ISFSI. Under Option 2, these two categories of licensees in Level 3 – Part 72 specific licensees and Part 50 or 52 licensees with Part 72 general licenses – would be subject to the same requirements as currently exist under 10 CFR 72.32.” Due to the differences in Part 50 and Part 72 EP requirements, NEI proposes that the Decommissioning Rulemaking include revising the 72.32 requirements to align with 10 CFR 50.47, etc. Examples of inconsistencies between Part 50 and Part 72 EP requirements include:

- 50.47(b)(4) requires NOUE and Alerts vs. 72.32(3) requiring only Alerts
- 72.32(13) Addresses Hazardous Chemicals vs, 50.47 does not include this requirement

- 72.32(14) Comments on Plan, requires the licensee to allow the offsite response organizations an opportunity to comment on the initial submittal of the licensee's emergency plan vs. 50.47 does not have this requirement
- Overall 72.32 regulations are similar but structured differently. There is not a one-for-one comparison of the regulations. Licensees which have structured Emergency Plans under NUREG-0654 format for industry standardization would need to totally rewrite the Emergency Plan to 72.32 format.
- Additionally, "Assessment of Release" and "arrangements for contaminated injured individuals" should be removed from the regulations for an ISFSI-only Emergency Plan under 50.47 and/or 72.32

### **Notifications under 10 CFR 50.72**

The draft RBD states "The 8-hour reporting requirement of 10 CFR 50.72(b)(3)(xiii) will also continue to apply; however, since many of these capabilities may not be requirements of a PDEP, the NRC staff intends to provide additional guidance in NUREG-1022, or a similar document, to clarify how the regulation applies to facilities in decommissioning." NEI supports the conclusion that additional guidance would be required for the defuel condition.

EP Rulemaking should include revision to 10 CFR 50.72 to eliminate the requirement for ENS based on past precedent and allow for the use of alternative means.

### **Additional Amendments for Emergency Planning**

#### *Applicability of 10 CFR 50.54(s)(2)(ii) and (s)(3)*

The draft RBD states: "the NRC staff is considering changes to clarify that 10 CFR 50.54(s)(3) applies only when offsite REP programs are required by regulation." This seems to be a necessary change and would be useful in avoiding potential questions regarding compliance with regulation for future licensees transitioning to decommissioning or licensing a small modular reactor or other new technologies.

#### *Change Process under 10 CFR 50.54(q)*

The draft RBD provides 2 options for transitioning between Decommissioning Levels. The draft RBD states for Option 2 "The licensee would be able to make changes to its emergency plan using the 10 CFR 50.54(q) process (or a similar change process) but would not need to consider whether the change is a reduction in effectiveness or request a license amendment, provided that the change is enacted to comply with the

graded EP regulatory standards.” NEI supports this option. **Plan Changes for the Next Level**

The draft RBD states for Option 2 “licensee would be required to allow the OROs expected to respond in case of an accident 60 days to comment on the initial submittal of the licensee’s graded emergency plan changes.” NEI does not believe the proposed ORO review and comment period is necessary to maintain effective offsite coordination given the ongoing applicability of other NRC regulations. 10 CFR 50, Appendix E, provides requirements to maintain coordination arrangements with local support services (e.g., first responder organizations). Appendix E also requires each licensee to establish procedures which describe “mutually” agreeable bases for notification of response organizations and the contents of the emergency messages in coordination with State and local organizations. Should the staff elect to retain the proposed comment period, NEI recommends that regulations and guidance be very clear concerning the expected scope of the reviews and management of the comment resolution process.

#### *Program Element Review under 10 CFR 50.54(t)*

NEI supports allowance of licensees to conduct reviews every 24 months and remove the requirement to review adequacy of interfaces with State and local governments

### **Summary**

NEI supports Rulemaking Option 2 because it would define the level of EP appropriate for a decommissioning nuclear power plant site from the time of permanent cessation of operations until such time as EP would no longer be required. By doing so, it will provide regulatory certainty and reduce the need for licensees to request exemptions from regulations and the associated regulatory burden on the licensees and the NRC. At the same time, there would be no reduction in the level of protection of public health and safety since the graded EP regulatory standards are commensurate with the risks associated with potential accidents within each level.

The industry is prepared to participate in the development of any new or revised guidance necessary to implement EP aspects of the final decommissioning rule. This may include guidance on topics such as emergency response staffing, public information, and the timing and scope of full participation exercises and drills in relation to a licensee’s 8-year exercise cycle and the timeline for decommissioning.

Finally, NEI offers the following comments and recommendations for staff consideration.

1. References to the EPA PAG manual could be updated to include EPA-400/R-17/001, dated January 2017.
2. Descriptions of a licensee's beyond-design-basis event response capabilities could include strategies and equipment governed by NRC Order EA-12-049, *Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events*, dated March 12, 2012, and the Draft Final Rule on Mitigation of Beyond-Design-Basis Events (Refer to SECY-16-0142, dated December 15, 2016).
3. The discussion of NRC regulatory authority in Appendix A section, *Applicability of 10 CFR 50.54(s)(2)(ii) and (s)(3)*, could be enhanced by including references to relevant case law, such as:
  - *Power Reactor Development Co. v. International Union of Electrical Radio Machine Workers AFL-CIO*, 367 U.S. 396, 404 (1961)
  - *Siegel v. AEC*, 400 F.2d 779, 783 (D.C. Cir. 1968)
  - *Connecticut Light and Power Co. v. NRC*, 673 F.2d 525, 527, n.3 (D.C. Cir. 1982)
  - *Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n*, 461 U.S. 190, 212 (1983)
  - *Duke Power Co. v. United States Nuclear Regulatory Commission*, 770 F.2d 386, 390 (4<sup>th</sup> Cir.1985).
  - *Massachusetts v. United States*, 856 F.2d 378, 382 (1st Cir. 1988)
  - *Massachusetts v. NRC*, 878 F.2d 1516, 1524 (1st Cir. 1989)
  - *State of Ohio ex rel. Celebrezze v. NRC*, 868 F.2d 810, 815-16 (6th Cir. 1989)
  - *Rockland County v. NRC*, 709 F.2d 766, 770 (2nd Cir. 1983)
4. Descriptions of response organizations, capabilities and actions could be enhanced through the use of terminology that helps distinguish between the requirements in Level 1 (use REPP terminology), and those in the other Levels (use all hazards terminology). For example, "Offsite Response Organization" is a REP term that is

applicable in Level 1; other terminology such as “emergency management agency” could be used in discussions applicable to other Levels.

5. Emergency Action Level guidance needs to be developed to support Option 2 EP rulemaking in levels 1-3.

## **Appendix B – Physical Security**

### **Overview**

The NRC is proposing that changes be made to the regulations in the area of physical security in order to enhance the clarity and predictability of the decommissioning process. The NRC also states that these changes will result in savings to the licensees and to the NRC as the number of exemptions requests are reduced, and due to the ability to expedite the decommissioning process. NEI generally concurs with this assessment, but has some specific comments to maximize the clarity and effectiveness of the changes.

### **NRC-Conducted Force-on-Force Inspections**

The Atomic Energy Act of 1954 (as amended) requires force-on-force exercises at each licensed facility that is a part of a class of licensed facilities, as the Commission considers to be appropriate. In their discussion on page B-6 staff states that NRC practice is to conduct these evaluations at two classes of licensed facilities that do not include decommissioning facilities. Staff also acknowledges that NRC has not published regulations that implement the statutory requirement of the Act, and concludes that no changes to the regulations are recommended for this issue. Staff states they intend to continue the practice of notifying licensees by letter that they are no longer subject to NRC-conducted force-on-force inspections, once the licensees have submitted the 10 CFR 50.82(a) certifications, and that they will reflect this in internal licensing guidance.

However, NRC staff states that this rulemaking is intended to streamline the process by incorporating into the regulations those adjustments to security requirements for decommissioning reactors that have been commonly requested and that may be generically applied to reduce licensee and staff burden. NEI recommends that the rulemaking codify that NRC-conducted force-on-force exercises are discontinued for licensees entering decommissioning. Without this clarity, it is left to the staff to decide on a case-by-case basis whether and under what circumstances NRC-conducted force-on-force exercises are to be discontinued. Internal staff policy in this matter could change overtime. Therefore placing this requirement in the regulation supports a stable, predictable regulatory environment that reduces licensee and staff burden and supports the goals of this rulemaking.

## **Suspension of Security Measures**

NEI concurs with Staff recommendation to revise rule language to add the certified fuel handler as having the authority to approve the suspension of security measures during emergencies or severe weather as a means to streamline the decommissioning process by incorporating exemptions commonly requested by licensees. NEI further recommends that senior on-shift licensee representative also be added as having authority to approve the suspension of security measures, consistent with Staff recommended changes described below in the Communications with the Control Room area.

## **Protection against Significant Core Damage**

NEI concurs with Staff recommendation to relieve licensees of a nuclear power reactor in decommissioning from the requirement that the physical protection program be designed to prevent significant core damage. In addition to the proposed change to 10 CFR 73.55(b)(3), similar conforming changes should be to the following sections to address the requirement to protect against significant core damage for facilities in decommissioning:

- 10 CFR 73.55(b)(9)(i) insider mitigation program
- 10 CFR 73.55(e)(10)(i) physical barriers – land vehicles
- 10 CFR 73.55(k) response requirements

## **Training for Loss of the Ultimate Heat Sink**

NEI concurs that as a means to streamline the decommissioning process by incorporating exemptions and order rescissions commonly requested by licensees and granted by the NRC, the security order requirement for operational training for loss of the ultimate heat sink is no longer required, and concurs with the Staff proposal to notify licensees that the requirement to implement this Section of Order EA-02-026 is rescinded once a licensee has submitted the certifications of permanent cessation of operations and permanent removal of fuel from the reactor pursuant to 10 CFR 50.82(a) or 10 CFR 52.110(a).

## **Protection of the Control Room**

NEI concurs with Staff recommendation to no longer require licensees to protect the reactor control room as a vital area once a licensee has submitted the certifications of

permanent cessation of operations and permanent removal of fuel from the reactor pursuant to 10 CFR 50.82(a) or 10 CFR 52.110(a).

### **Communications with the Control Room**

NEI concurs with Staff recommendation that as a means to streamline the decommissioning process by incorporating exemptions commonly requested by licensees and granted by the NRC, the requirement to maintain continuous communications between the alarm stations and the control room should be replaced with a requirement to maintain communications between the alarm stations and the certified fuel handler and/or senior on-shift licensee representative.

### **Number of Armed Responders**

NRC acknowledges on the first page of Appendix B that staff and licensees have expended substantial resources processing security related licensing actions such as exemption requests and license amendment requests during the transition period to decommissioning status; and further, that the current regulatory process of exemption and license amendment request approval is not an efficient use of staff resources to adjust requirements for decommissioning reactors and also introduces significant regulatory burden to licenses.

NRC staff states that this rulemaking is intended to streamline the process by incorporating into the regulations those adjustments to security requirements for decommissioning reactors that have been commonly requested and that may be generically applied to reduce licensee and staff burden.

In the discussion of the regulation (10 CFR 73.55(k)(5)) which prescribes the required minimum number of armed responders, staff acknowledges the regulation does not take into account this lower risk and corresponding reduction in the number of target sets required to be protected as facilities defuel and progress through the decommissioning process. Staff states that, commensurate with this reduction in potential targets, licensees should be permitted to reassess the minimum number of armed responders needed to implement the site protective strategy.

However, contrary to this concept of regulatory streamlining stated above, staff concludes that no change to the current regulations should be made, and that existing regulatory processes are sufficient to address this issue. Licensees would still be required to submit such reassessments of the minimum number of armed responders for NRC approval under the 10 CFR 50.90 license amendment request process. This

represents no change from the existing process, which staff acknowledges is unduly burdensome.

The reduction in risk and target sets is predictable and consistent for all licensees progressing through the decommissioning process. Therefore as staff states, a regulatory approach can be generically applied to reassessment in required number of armed responders. NEI recommends that the NRC revise the regulation to remove the minimum number of armed responders after a licensee has permanently removed all nuclear fuel from their reactor vessel and certified this under 10 CFR 50.82(a). The 10 CFR 50.54(p) regulation requires that licensees may not make changes which would decrease the effectiveness of a physical security plan without prior NRC approval under 10 CFR 50.90; and that all changes be reported within 2 months. Allowing licensee reassessments, that do not decrease effectiveness, of the number of armed responders, to be documented in changes to their security plans under 10 CFR 50.54(p), and submitted to NRC within 2 months, lessens the significant regulatory burden on staff and licensees and streamlines the process for adjusting security requirements for decommissioning reactors, consistent with the stated purpose of the rulemaking. Continuing to require a licensee to submit proposed changes to number of armed responders for NRC approval under 10 CFR 50.90 does nothing to reduce the acknowledged significant regulatory burden. Therefore, as recommended in NEI's March 2016 comments on the ANPR,<sup>23</sup> NEI proposes the following changes to the new rule language in 10 CFR 73.55(k)(5) to implement this change:

- (i) The licensee shall determine the minimum number of armed responders necessary to satisfy the design requirements of § 73.55(b) and implement the protective strategy. The licensee shall document this number in the security plans.
- (ii) The number of armed responders shall not be less than ten (10) until a licensee has docketed the certifications of permanent cessation of operations and permanent removal of fuel from the reactor vessel pursuant to 10 CFR. §§ 50.82 or 52.110.
- (iii) Armed responders shall be available at all times inside the protected area and may not be assigned other duties or responsibilities that could interfere with their assigned response duties.

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<sup>23</sup> Letter, from R. McCullum (NEI) to A. Vietti-Cook (NRC), *Industry Comments on the NRC Advance Notice of Proposed Rulemaking (ANPR) on Regulatory Improvements for Decommissioning Power Reactors* (March 17, 2016) ("NEI ANPR Comments"), at Attach 2, pg. 52.

## **Safeguards Effectiveness**

NRC is proposing to add a new definition of a “decrease in safeguards effectiveness,” based on a similar definition of reduction in effectiveness provided in the existing Emergency Preparedness regulations. However, this proposed new definition introduces another new term, “security function,” which is not defined. In contrast, the Emergency Preparedness regulations define “reduction in effectiveness” and also define “emergency planning function” (10 CFR 50.54(q)(1)). In addition, the Emergency Preparedness regulations further set forth the detailed emergency planning functions in 10 CFR 50 Appendix E Section IV and 10 CFR 50.47(b).

Therefore the proposed change, by introducing a new undefined term, does not achieve the stated goal of clarifying the term “decrease in safeguards effectiveness.” Absent the addition of clarifying information on “security functions,” this new proposed definition of “decrease in safeguards effectiveness” should not be added, consistent with Staff Option 1.

## **Transition to Physical Security Requirements Applicable to an ISFSI**

NEI concurs with Staff recommendation to add language to 10 CFR 72.212(b)(9) to direct licensees to provide for physical protection of the spent nuclear fuel under Subpart H of 10 CFR 72 and 10 CFR 73.51 upon submittal of the certifications of permanent cessation of operations and permanent removal of fuel from the reactor vessel pursuant to 10 CFR 50.82 or 10 CFR 52.210, and revision of the final facility safety analysis report to reflect that all spent fuel has been placed in dry storage (including a prohibition against storage of fuel in the spent fuel pool). This change would acknowledge the reduction in risk for a reactor with all fuel in dry storage, and streamline the process that at present requires an extensive 10 CFR 50.90 amendment request to revise a licensee’s physical security plan. Conforming changes should also be made to 10 CFR 73.55(a) to clarify that licensees in this configuration are not subject to 10 CFR 73.55 for physical protection of nuclear fuel.

## **Federal Register Notice Questions Related to Physical Protection of Quantities of Radioactive Materials (10 CFR 37)**

The NRC has requested feedback on several questions related to physical security in the Federal Register Notice. Questions 6 through 9 address the 10 CFR 37 regulation. As described in the cover letter, NEI has previously submitted a petition for rulemaking in this area<sup>24</sup>, and continues to support this change. Specific responses to these questions follow:

*Question 6 - Are the physical security protection programs in 10 CFR part 37 an area of regulation that the NRC should address in this rulemaking? If so, why, and how should the NRC address this issue?*

Yes. NEI strongly urges the NRC to re-evaluate the application of the physical security programs in 10 CFR part 37 as they relate to Category 1 and Category 2 quantities of radioactive material as they are defined in Part 37. Other than the exemptions provided in 10 CFR 37.11(c), the NRC regulations currently require the implementation of enhanced protective measures based solely on the total activity definition of Category 1 and Category 2 radioactive materials. This is not the only factor influencing the risk of theft or diversion of this material. In addition to total activity, it is strongly recommended that the need for enhanced physical security for radioactive material consider other aspects of the material, such as physical form, volume, radioactivity concentration, location and other aspects which provide inherent protective features that should obviate the need for enhanced protective measures.

On June 12, 2015, the NRC published a notice<sup>25</sup> that they will consider three issues in the rulemaking process raised in NEI's June 2014 petition for rulemaking (PRM-37-1). NEI requested that the NRC amend its regulations to clarify and expand current exemptions for when the physical protection measures for category 1 and category 2 quantities of radioactive material do not apply to a licensee. Neither the PRM-37-1, nor the June 12, 2015 FRN, is mentioned in the draft RBD, and it is unclear whether NRC intends to address the issues described therein during this rulemaking. NEI recommends NRC address and include the issues described in PRM-37-1 as part of the decommissioning rulemaking. If the three issues raised in the PRM-37-1 are addressed, this would provide some of the needed clarification for licensees in decommissioning, as

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<sup>24</sup> "Petition for Rulemaking to Amend 10 CFR Part 37, 'Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material,' June 12, 2014 ("PRM-37-1").

<sup>25</sup> 80 Fed. Reg. 33,450; June 12, 2015.

discussed in the remainder of the responses to questions 6 through 9 presented here. The issues presented in PRM-37-1 are:

Issue 1: Revise the Exemption in 10 CFR 37.11(b) to clarify what is being exempted from subparts B and C of 10 CFR 37 via crediting the 10 CFR 73 security plan.

Issue 2: Revise the Exemption in 10 CFR 37.11(c) to remove any ambiguity as to what type of wastes the exemption applies.

Issue 3: Add an Exemption to Address Large Components and Storage in Robust Structures, specifically to add them as examples of radioactive waste which, if containing category 1 or category 2 quantities of radioactive material, are exempt from the requirements of subparts B, C, and D of 10 CFR 37.

The need for enhanced security in part 37 is based on the IAEA (International Atomic Energy Agency) Code of Conduct publication.<sup>26</sup> The NRC adopted the IAEA threshold quantities and the basic guidance published in the Code of Conduct.<sup>27</sup> Sixteen (16) of the most readily available radionuclides, and those considered to pose the most threat to public safety, were chosen to be included in the NRC regulation. This approach also provided consistency between domestic and international efforts for security of radioactive material.<sup>28</sup>

This IAEA guidance, and basis for 10 CFR part 37, deal with discrete radioactive sources, radioactive material that could be easily stolen and surreptitiously used in either a radiological dispersal device (RDD) or a radiological exposure device (RED). None of the original basis IAEA documents deals with or discusses the risks of non-discrete sources. However NRC applied the physical security program requirements in part 37 to Category 1 and 2 quantities of radioactivity widely distributed in volumetric material, dispersed as surface contamination, or otherwise existing in low concentrations or physically large or heavy objects or structures which are difficult and time consuming to access and remove. This is not commensurate with the risk of these forms of materials.

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<sup>26</sup> IAEA, Code of Conduct on the Safety and Security of Radioactive Sources, 2004.

<sup>27</sup> See "Physical Protection of Byproduct Material: Final Rule," 78 Fed. Reg. 16,922 (March 19, 2013).

<sup>28</sup> The original characterization documents are IAEA, TECDOC-1344, Categorization of Radioactive Sources (July 2013), and IAEA, TECDOC-1191, Categorization of Radiation Sources, March 2001.

IAEA' RS-G-1.9, *Categorization of Radioactive Sources* (2005), describes the hazard present and the risk potential as follows for Category 1 and Category 2 sources as follows:

Category of Source	Risk in being close to an individual source	Risk in the event that the radioactive material in the source is dispersed by fire or explosion
1	Extremely dangerous to the person: This source, if not safely managed or securely protected, would be likely to cause permanent injury to a person who handled it or who was otherwise in contact with it for more than a few minutes. It would probably be fatal to be close to this amount of unshielded radioactive material for a period in the range of a few minutes to an hour	This amount of radioactive material, if dispersed, could possibly – although it would be unlikely - permanently injure or be life threatening to persons in the immediate vicinity. There would be little or no risk of immediate health effects to persons beyond a few hundred meters away, but contaminated areas would need to be cleaned up in accordance with international standards. For large sources the area to be cleaned could be a square kilometer or more.
2	Very dangerous to the person: This source, if not safely managed or securely protected, could cause permanent injury to a person who handled it or who was otherwise in contact with it for a short time (minutes to hours). It could possibly be fatal to be close to this amount of unshielded radioactive material for a period of hours to days.	This amount of radioactive material, if dispersed, could possibly - although it would be very unlikely – permanently injure or be life threatening to persons in the immediate vicinity. There would be little or no risk of immediate health effects to persons beyond a hundred meters or so away, but contaminated areas would need to be cleaned up in accordance with international standards. The area to be cleaned up would probably not exceed a square kilometer

It is evident that risks associated with Category 1 and 2 sources as described in the above basis to part 37 align with the risks associated with concentrated discrete sources of material, such as irradiator sources. The same Category 1 or 2 source quantities existing as large volumes of diffuse materials do not present a serious external dose hazard or exist in a form that can be readily dispersible by a fire or an explosive device.

The current regulations do not define any reasonable limits on source aggregation or concentration to provide bounds on the amounts that could equate to Category 1 or 2 source quantities leading to enhanced physical security controls. For example, approximately 550 cubic meters of soil or sludge in an open land area or pond contaminated at a concentration of 0.01 microcuries/gram of Co-60 would exceed a Category 1 quantity and could be subject to aggregation and physical controls.

A second example would be an aggregated amount of radioactive material contained as diffuse fixed surface contamination on the inside or outside of tanks or containers, or intact primary coolant systems in a long term SAFSTOR configuration, i.e. components that cannot be concentrated into a size that would present any serious external dose hazard without great difficulty and time, and exists in a form that cannot be readily dispersed by a fire or an explosive device.

The application of part 37 controls to diffuse source material is problematic in that no bounds exist to define the extent of aggregation. This can be extremely burdensome for facilities, such as decommissioning facilities, where large amounts of diffuse materials may exist outside a part 73 security zone and subject to aggregation. The assumption that enough of this material could be collected, moved, and concentrated to be an RDD or RED risk is unreasonable and the cost of implementing part 37 physical security controls is expensive, time consuming, and not warranted.

NEI recommends that the NRC seriously consider changing the requirements in part 37 to provide relief from part 37 requirements for diffuse radioactive sources where the aggregation of such sources is an unreasonable assumption to postulate an RDD or RED risk.

One possible solution is that the NRC consider redefining Category 1 and 2 sources to include limits based on volumetric concentration (i.e. Ci/gm) or surface contamination (i.e. Ci/100cm<sup>2</sup>). This is a similar approach that the Department of Transportation has taken to recognize the reduced risk in large volumetric sources or surface contaminated objects. Low specific activity materials or surface contaminated objects can have a total activity over the Type A or Type B shipping limits but may be subject to less rigorous shipping requirements due to the lower risk associated with the diffuse properties of the material. The NRC should define limits of diffuse material in this manner that would negate the requirements for enhanced protective measures due to their reduced risk.

Additionally, as it exists today, the four requirements (1-4) defined within part 37.11(c) are overly burdensome when applied to the materials typically associated with a decommissioned plant in SAFSTOR waiting for commencement of active

decommissioning. Specifically, the need to apply continuous monitoring in lieu of periodic observations conducted at a frequency ensuring detection of attempted theft or diversion within the task time to conduct such theft or diversion. As currently written part 37.11(c) does not allow this flexibility.

Following recognition that Part 37 measures associated with radioactive materials contained robust structures or associated with certain large components, the NRC issued an Enforcement Guidance Memorandum (EGM-14-001) to address the exemption of these certain large components and materials within robust structures. This exemption from certain parts of Part 37 is limited to those licensees with a Part 73 security plan. Decommissioned facilities waiting to commence active decommissioning activities, if not fully exempted from Part 37, should have similar exemptions to those granted under EGM-14-001.

*Question 7 - Should 10 CFR part 50 licensees transitioning from an operating status to decommissioning status be provided specific physical security requirements in 10 CFR part 37 for category 1 and category 2 materials, based on their decommissioning status (i.e., in DECON, SAFSTOR, and ENTOMB)?*

Yes. As stated above, provisions should be made to exclude from regulation under 10 CFR 37 material that is dispersed, hard to access due to inherent protective features such as size, weight, remaining intact as a system, etc. The only exception to this would be applied to discrete sources that meet the threshold levels for Category 1 and Category 2 (e.g., instrument calibration sources) as recommended in the IAEA safety code for the security of radioactive sources. The specific physical security requirements at a decommissioned reactor site should include typical industrial security access controls (e.g., a fence around the site or a locked or guarded access to buildings or areas containing radioactive materials). This exemption should apply to all phases of decommissioning (i.e., SAFSTOR, DECON, ENTOMB).

The basis for this exemption is that it would require long periods of time and specialized equipment to gain access to and obtain greater than Category 2 quantities or radioactive materials at a decommissioned reactor site. To accumulate a threshold quantity of radioactive material (i.e., 8.1 Ci of Co-60), it would take hundreds to thousands of linear feet of system piping, or removal of components weighing more than several tons in weight. The radioactive material contained as diffuse surface contamination inside piping systems or dispersed inside large, physically robust components (e.g., heat exchangers, tanks) cannot be concentrated into a size that would present a serious external dose hazard, and exists in a form that cannot be readily dispersed by fire or an explosive device. Due to the inaccessibility of radioactive

materials in sufficient removable quantities, the physical security requirements consisting of typical industrial security controls such as a fence around the site or a locked or guarded access will provide reasonable measures to prevent theft.

*Question 8 - Should the NRC establish security requirements for the storage of Category 1 and Category 2 materials contained in large components, robust structures, and in other equipment that are not likely to be subject to theft and diversion due to their inherent self-protecting features (i.e., large physical size and weight)?*

Yes. The NRC Staff's draft RBD clearly recognizes a need for amending physical security requirements. In choosing the option to amend physical security requirements the NRC Staff recognizes 1) the decreased risk associated with reactor sites during decommissioning and 2) reduced expenditure of licensee and NRC Staff resources.

Regulation for Category 1 and Category 2 radioactive materials (10 CFR 37) was meant to demonstrate reasonable assurance that the licensee could prevent theft or diversion of these radioactive materials. Theft and diversion of Category 1 and Category 2 radioactive materials stored in large inaccessible components or within robust structures without detection and intervention are unreasonable scenarios. As such, the licensee should be exempt from all requirements of 10 CFR 37 for these materials. During decommissioning and when the licensee declares these radioactive materials as waste, then 10 CFR 37.11(c) criteria could apply.

Additionally, as it exists today, the four requirements (1-4) defined within part 37.11(c) are overly burdensome when applied to the materials typically associated with a decommissioned plant in SAFSTOR waiting for commencement of active decommissioning. Specifically, the need to apply continuous monitoring in lieu of periodic observations conducted at a frequency ensuring detection of attempted theft or diversion within the task time to conduct such theft or diversion. As currently written part 37.11(c) does not adequately address a facility in a long term dormancy condition (SAFSTOR).

*Question 9 - Is a clarification of the exemption in 37.11(b) needed with respect to facilities with 10 CFR part 73 security plans that are undergoing decommissioning?*

Yes. Part 37.11(b) has been a source of confusion since the language in this specific rule section was changed from a full exemption as was proposed in early rulemaking to limited exemption based upon the additional and confusing wording, "to the extent that

the activities are covered under the physical protection requirements of 10 CFR part 73.” Many licensees initially considered materials within a Protected Area established under Part 73 requirements would be fully exempted from Part 37. Early Part 37 inspection activities at power reactor facilities led to added confusion as regional inspectors were inconsistent in their understanding of part 37.11(b). This confusion led to a suspension of inspection activities and a rewrite of inspection guidance.

A more precise defining of the exemptions applicable under part 37.11(b) will be critical as power reactors enter into decommissioning and reduce their part 73 security measures as reactors and fuel pools have their SNM removed and part 73 Protected Areas reduced in scope. An example of this would be that many power reactors will see their security footprint reduced to an ISFSI based protection strategy. Although primarily focused on the ISFSI, incidental observation of the reactor building and associated structures by trained individuals would be sufficient to detect any attempted theft or diversion of a reactor vessel, other activated components in the reactor building, auxiliary building or containment structure, or materials within other robust structures. If retained as the rule governing Part 37 applicability during decommissioning, Part 37.11(b) should be changed to allow various means of assuring the protection of the part 37 materials with the available security measures associated with ISFSI protection.

### **Federal Register Notice Questions Related to Physical Security**

Questions 12 and 13 address the staff’s proposal to add a definition of the term “decrease in safeguards effectiveness” and request feedback on which of 3 options should be pursued:

Option 1 - No change to regulations

Option 2 - Develop regulatory guidance / examples of changes to a security plan that do and do not decrease the safeguards effectiveness.

Option 3 - Revise 50.54(p) to include a definition of “decrease in safeguards effectiveness”

As stated above in the Section titled “Safeguards Effectiveness”, Option 1 is the preferred option, since the proposed changes do not meet the stated goal to clarify the term and does not increase the effectiveness of the regulations.

## **Appendix C - Cyber Security**

### **Overview**

The NRC has requested feedback on how cyber security regulations should be changed for power reactors in decommissioning. Two options have been proposed as follows:

1. No Action, or
2. Rulemaking to codify timing of cyber security reductions, to either reduce the requirements when spent fuel is in dry storage, or when the spent fuel is sufficiently decayed.

### **NEI Response**

The NRC requested specific feedback regarding the options being considered. Option 2, "Rulemaking to Codify Timing of Cyber Security Reductions," includes two sub-options. A third option should be added. The third option would amend the Commission's regulations to clarify that cyber security license conditions are removed once a licensee has submitted certifications of permanent removal of fuel from the reactor pursuant to 10 CFR 50.82(a)(1) or 52.110(a). Regarding the first of the two options currently proposed (all fuel is in dry casks), NEI concurs with the NRC's assessment - there is not sufficient justification to pursue this option at this time. On the second of these two options (fuel is sufficiently decayed), NEI contends there is insufficient risk to warrant a wholesale continued imposition of cyber security requirements on facilities that have permanently defueled. This is true due to the configuration of spent fuel pools, the availability of reliable spent fuel pool level indication, and the defense-in-depth capabilities to maintain or reestablish fuel pool inventory to mitigate the risk that a cyber-attack could result in a radiological release to an acceptably low level. NEI does not believe that a sufficiently compelling case can be made to justify the effort to develop, issue, and implement a new rule, and to justify the diversion of decommissioning resources to maintaining a program that produces no appreciable safety or security benefit. Accordingly, NEI favors the regulations be clarified to remove cyber security license conditions once a licensee has submitted certifications of permanent removal of fuel from the reactor. This new option would require a minimal one-time cost to the NRC, and would result in ongoing savings to both the NRC and industry in reduced licensing actions.

## **Appendix D - Drug and Alcohol Testing**

### **Overview**

The NRC has requested feedback on how regulations related to drug and alcohol testing should be changed for power reactors in decommissioning. Two options have been proposed as follows:

1. No Action, or
2. Rulemaking to codify fitness for duty requirements for decommissioning power reactors.

### **NEI Response**

NEI supports Option 1 to continue with the existing decommissioning process as described in the current regulations. These regulations include a requirement to implement elements of 10 CFR Part 26 for fitness for duty (FFD) including drug and alcohol testing in an insider mitigation program (IMP), as specified in 10 CFR 73.55(b)(9). The current regulatory framework for FFD is considered adequate to address the requirements for facilities transitioning to decommissioning. As the Staff notes, "based on observation of the reactor sites that recently decommissioned, licensees are implementing all of the elements of 10 CFR Part 26, with the exception of Subparts I and K, in their IMPs." As discussed at the end of this response, 10 CFR 26.3(e) should be revised to clarify that 10 CFR Part 26 does not apply to power reactor licensees that have docketed the certifications of permanent cessation of operations and permanent removal of fuel from the reactor vessel pursuant to 10 CFR 50.82 or 10 CFR 52.110.

However, with respect to Option 1, NEI does not consider updating guidance in Regulatory Guide 5.77 to address the Staff's position on which elements of 10 CFR Part 26 apply for a decommissioning facility's IMP to be efficient, since as proposed it would require an update to NEI 03-12 and for industry to commit to this update. This approach has the potential to significantly impact decommissioning since it may require licensees to submit to a number of changes, unrelated to FFD, that have been incorporated into this guidance that are different from what has already been committed to in their physical security plans, which would be expected to remain largely in effect as the facility begins the transition to decommissioning.

For this reason, NEI considers an alternative approach to be stand-alone guidance that is specific to FFD requirements for the IMP, to which facilities transitioning to

decommissioning can commit. This would provide clarity and promote consistent implementation of the FFD program at decommissioning power reactors, without potentially impacting previous commitments to NEI 03-12 by incorporating the new guidance into existing Regulatory Guide 5.77. NEI would be pleased to develop and submit to NRC for endorsement any necessary guidance to address the aspects of a drug and alcohol testing program that are considered applicable to decommissioning facilities. Examples of this are described below.

Stepping down certain regulations that are related to applicability of FFD as an element of the IMP is discussed in other sections of the draft RBD. In Appendix B, under "Transition to Physical Security Requirements Applicable to an ISFSI," NRC staff recommends adding a new paragraph to 10 CFR 72.212(b)(9):

(vii) Upon docketing of the certifications of permanent cessation of operations and permanent removal of fuel from the reactor vessel pursuant to § 50.82 or § 52.110 of this chapter, and revision of the final facility safety analysis report to reflect that all spent fuel has been placed in dry storage at the facility (including a prohibition against storage of fuel in the spent fuel pool), the licensee shall provide for physical protection of the spent fuel under Subpart H of this part and § 73.51 of this chapter.

If the above proposed change were adopted, it would effectively remove the 10 CFR 73.55(b)(9)(ii)(D) required element for IMP after the transition to dry storage, when physical protection requirements under Subpart H of 10 CFR Part 72 and 10 CFR 73.51 would apply. At this point in the transition, other regulations including 10 CFR 73.55(b)(9)(ii)(B) and 10 CFR 73.55(g)(7)(ii), as related to 10 CFR Part 26 requirements, would also not apply under Subpart H of 10 CFR Part 72 and 10 CFR 73.51.

Another example is provided under the discussion on License Conditions in Section 2.3, where the staff notes that in most circumstances, the Fire Protection Program license condition can be removed because it is intended to ensure protections are in place to reach safe shutdown in the event of a fire. The fire protection requirements for decommissioning reactors specified in 10 CFR 50.48(f) require the licensee to maintain fire protection capabilities for the rest of the facility to address potential fire events that may have radiological consequences. Therefore, removal of the operating reactor fire protection license condition should not impact fire protection at a decommissioning reactor. 10 CFR 26.4(a)(3) applies to personnel performing the duties of a fire brigade member responsible for understanding the effects of fire and fire suppressants on safe shutdown capability, therefore these individuals are no longer required after permanent

shutdown and safe shutdown concerns are no longer possible. Therefore no change to this requirement should be necessary to exclude these personnel from FFD.

This treatment would be similar to the manner in which the reference in 10 CFR 73.55(b)(9)(ii)(C) that implicates cyber security requirements would no longer apply to the licensee at the same time the 10 CFR 73.54 requirements stop applying, such as once the proper certifications have been docketed. In addition, requirements in 10 CFR 73.56(i)(1)(v)(B)(4) for individuals with access, extensive knowledge, or administrative control over plant digital computer and communication systems and networks as identified in 10 CFR 73.54 would no longer be applicable.

As the staff notes, as decommissioning proceeds and the risk of malicious acts or accidents involving the spent nuclear fuel in the spent fuel pool decreases, when the FFD program may no longer be required for individuals identified in 10 CFR 26.4(a)(2) through (4). The FFD program would continue to apply to security personnel in 10 CFR 26.4(a)(5) while spent nuclear fuel is located in the spent fuel pool, and individuals managing the FFD program as defined in 10 CFR 26.4(g).

The above are examples of clarifications to requirements that may be included in new regulatory guidance specific to facilities transitioning to decommissioning.

In conjunction with the above, NEI recommends that 10 CFR 26.3(e) should be revised to clarify that 10 CFR Part 26, including the provisions for drug and alcohol testing requirements, do not apply to power reactor licensees that have docketed the certifications of permanent cessation of operations and permanent removal of fuel from the reactor vessel pursuant to 10 CFR 50.82 or 10 CFR 52.110. This clarification is reflected in the proposed changes to 10 CFR 26.3(e) that were provided on Page 59 in Attachment 2, "Proposed Rulemaking Language," to NEI letter dated March 17, 2016, "Industry Comments on the NRC Advance Notice of Proposed Rulemaking (ANPR) on Regulatory Improvement for Decommissioning Power Reactors; Docket ID: NRC-2015-0070." This would remove uncertainty in the regulations regarding the applicability of 10 CFR Part 26 to facilities in decommissioning, and allow sufficient guidance to reside in new regulatory guidance that would promote consistency and efficiency, and clarify requirements for facilities transitioning to decommissioning. This is a variation of Option 2 as presented.

The comments in this response to Appendix D of the draft RBD are also applicable to the corresponding Section 4.5 of the preliminary draft regulatory analysis document. NEI supports Alternative DA-1 (No-action alternative), which relates to Option 1 above. The guidance NEI would offer to develop would address behavioral observation, and employee assistance aspects of the FFD program as the required elements in an IMP.

However, revising Regulatory Guide 5.77 to clarify these could have an impact to previous commitments in licensee's security plans related to NEI 03-12, "Security Plan Template," and NEI 03-01, "Nuclear Power Plant Access Authorization Program," which are not related to drug and alcohol testing requirements for decommissioning power reactors. Therefore NEI recommends this guidance be provided in a separate new Regulatory Guide to avoid unintended impacts on previous commitments, and to facilitate consistent implementation of requirements through licensee commitments to the guidance as it pertains to decommissioning power reactors.

## **Appendix E - Minimum Staffing and Training Requirements for Non-Licensed Operators, Including Certified Fuel Handlers**

### **Overview**

Appendix E states that current regulations do not clearly establish requirements for minimum staffing and training applicable to plants that permanently cease operation. Specifically, NRC staff concluded that there is:

1. A lack of clarity in the regulations with regard to the staffing alternative for licensed operators after a reactor has permanently shut down and defueled under 10 CFR 50.82(a)(1) or 10 CFR 50.110(a);
2. A regulatory gap with respect to minimum staffing requirements for staff at permanently shut down and defueled reactors; and
3. An inconsistency in the regulatory treatment of training program requirements of NLOs, the training programs that do not require Commission approval, and the training programs for fuel handlers that can be used to qualify CFHs, which are also NLOs, and that require Commission approval. The staff further noted that there is a lack of clarity in the regulations with regard to what requirements, in addition to those stipulated in 10 CFR 50.120(b)(2) and (b)(3), an acceptable fuel handler training program for qualifying CFHs would have to meet, in order to be approved by the Commission.

Following NRC staff review of licensee submittals for plants entering the decommissioning process from the past few years, it was concluded that the proposed rulemaking Option 3 addresses all of the areas noted above and closely aligns with recent licensee approvals.

NEI agrees that the proposed rulemaking described as Option 3 is the appropriate course of action to provide clarity and close existing gaps in current regulations. Option 3 will assure regulations more appropriately reflect the responsibilities of the Certified Fuel Handler (CFH), establish minimum CFH and Non-Licensed Operator staffing requirements, and eliminate the requirement for a Shift Technical Advisor (STA) for plants that have permanently shutdown and entered decommissioning. NEI strongly recommends that, where applicable, each of the proposed changes frame the period during which it applies. For example and consistent with NRC practice and precedent, the CFH and NLO positions should not be required after all spent fuel has

been transferred to dry storage (Level 3) because the fuel is stored in a static condition.

### **Definition of Certified Fuel Handler**

One of the changes proposed involves the expansion of the current definition of Certified Fuel Handler (CFH) in 10 CFR 50.2. Specifically, the NRC stated it is considering the following changes:

*Certified fuel handler* means, for a nuclear power reactor facility, a non-licensed operator who is responsible for decisions on (1) safe conduct of decommissioning activities, (2) safe handling and storage of spent fuel, and (3) appropriate response to plant emergencies, and has qualified in accordance with a fuel handler non-licensed operator training program approved by the Commission required by 10 CFR 50.120.

NEI agrees that a change to the CFH Definition in 10 CFR 50.2 is needed and that the requirement for Commission approval of the CFH Training and Qualification program should be eliminated.

As proposed, the change refers to qualification in accordance with a non-licensed operator training program required by 10 CFR 50.120. While it is agreed that the systematic approach to training can be used to modify training programs to adjust content when job performance requirements are changed, there is some concern that the use of a reference to the Non-Licensed Operator training program could create confusion because:

1. Tasks performed by CFH personnel overlap with tasks performed by Non-Licensed Operators, Licensed Operators, and Shift Managers under current operational programs; and,
2. Non-Certified Fuel Handler positions, which more closely align with Non-Licensed Operator positions, also exist during decommissioning.

Since the CFH position is a unique position, NEI recommends that 10 CFR 50.120 be revised consistent with the NEI response to the ANPR to add the Certified Fuel Handler to the list of required training programs, and that the definition in 10 CFR 50.2 refer directly to the CFH Training Program.

To support addition of the CFH Training Program to 10 CFR 50.120, industry developed content guidance in NEI 15-04, "Guidelines for a Certified Fuel Handler Training and Retraining Program," can be updated to reflect the content of the most recently approved CFH Training and Qualification programs and re-submitted for NRC Staff endorsement.

Should NRC staff conclude the definition of CFH will be revised as proposed in the draft RBD and maintain the proposed reference to the Non-Licensed Operator Training Program, additional regulatory guidance is recommended to clarify the transition process from the current accredited program and to eliminate the potential for confusion associated with implementation of the new rule.

NEI also agrees with including "safe conduct of decommissioning activities" in the list of CFH responsibilities in the 10 CFR 50.2 definition, but strongly recommends that the regulation limit this responsibility and applicability to the transition time from certification of permanent cessation of operations for a unit to the completion of the transfer of all spent fuel from that unit to dry storage. After all spent fuel is in dry storage, the CFH position is no longer necessary and should not be required. (E-12)

### **50.120 Training and Qualification of Nuclear Power Plant Personnel**

NEI supports revision of the regulation to state the Shift Technical Advisor (STA) position is no longer a required staff position for a unit following certification of permanent cessation of operations. (E-9)

As noted above, due to the unique nature of the CFH position, NEI recommends the addition of "Certified Fuel Handler" to the list of training programs contained in 10 CFR 50.120.

### **50.54(m) Minimum Requirements Per Shift for On-Site Staffing of Nuclear Power Units by Operators and Senior Operators**

NEI agrees that current shift staffing requirements contained in 50.54(m) are not applicable to permanently shutdown reactors in decommissioning. To provide consistency and ease during the transition from an operating plant to one in decommissioning, NEI supports specifying minimum shift staffing requirements for plants that enter decommissioning (Levels 1 and 2). The new requirement should be consistent with that recently approved for decommissioning plants, which is one CFH

and one non-licensed operator. (E-9). After all spent fuel is in dry storage (Level 3), the CFH and NLO positions are no longer necessary and should not be required.

## **Appendix F - Decommissioning Trust Funds**

### **Overview**

Appendix F describes 3 Options to address legitimate use of the Decommissioning Trust Funds (DTFs) to ensure sufficient funding is available for plant decommissioning, while reducing the need for regulatory exemptions. Subject to the comments provided below, NEI supports Option 2 because it would increase regulatory efficiency, without reducing the level of safety or financial assurance provided by the licensee. NEI agrees that the rule changes proposed under Option 2 would better inform licensees of their options for use of the DTFs, and create a consistent set of standards to determine if licensees are compliant with the appropriate use of the DTF. Option 2 meets the intent of the proposed rulemaking to ensure sufficient funding is available, while reducing the need for exemptions. Additionally, Option 2 is supported by the associated Draft Regulatory Analysis published by the staff. Specific comments on Appendix F and the associated sections of the Draft Regulatory Analysis are provided herein.

### **Use of the Decommissioning Trust Fund**

Under Option 2, the NRC proposes to amend the regulations in 10 CFR 50.75 and 10 CFR 50.82 to allow use of the DTF for spent fuel management and ISFSI decommissioning, as well as for radiological decommissioning, "as long as the licensee has delineated these expenses in the DTF and sufficient funds remain available to pay for radiological decommissioning of the facility."<sup>29</sup> As described in our comments on the ANPR, NEI supports a change to allow use of the DTF for purposes other than radiological decommissioning, provided the licensee can demonstrate that such use will not adversely impact its ability to complete radiological decommissioning of the facility. More specific comments on Option 2 are provided below.

#### *Allowance for Site Restoration*

NEI strongly recommends that the proposed changes to 10 CFR 50.75 and 50.82 explicitly allow use of the DTF for site restoration, as well as spent fuel management and ISFSI decommissioning, provided that funding for radiological decommissioning is adequate. NEI recognizes that the NRC does not regulate site restoration activities that are unrelated to the radiological decommissioning of nuclear power facilities. And the NRC would not be inappropriately asserting jurisdiction over such activities by simply

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<sup>29</sup> Draft Regulatory Basis, at pg. F-9.

allowing licensees to use excess funds<sup>30</sup> to pay for site restoration. Rather, the NRC would be recognizing that its regulations do “not preclude the use of funds from the decommissioning trust in excess of those needed for radiological decommissioning for other purposes, such as irradiated fuel management or site restoration.”<sup>31</sup> Further, in granting several recent exemption requests, the NRC concluded that:

An unnecessary financial burden without any corresponding safety benefit would be created if access to those excess funds in the Trust was prevented because irradiated fuel management and site restoration are not associated with radiological decommissioning. The adequacy of the Trust to cover the cost of activities associated with irradiated fuel management and site restoration in addition to radiological decommissioning is supported by the NRC staff’s review of the licensee’s site specific decommissioning cost analysis. If [the licensee] cannot use the Trust for irradiated fuel management and site restoration activities, it would need to obtain additional funding that would not be recoverable from the Trust, or [the licensee] would have to modify its decommissioning approach and methods. The NRC staff concludes that either outcome would impose an unnecessary and undue burden significantly in excess of that contemplated when the regulation was adopted.<sup>32</sup>

Allowing use of excess DTF funds for site restoration activities would address the unnecessary burden described above, while leaving the direct regulation of those activities to the appropriate federal, state, or local governmental entities.

Including site restoration activities is also consistent with the NRC’s long-standing position on the commingling of decommissioning funds in a single DTF. Historically, the NRC has not precluded the commingling of the funds in a single trust fund account to address radiological decommissioning, spent fuel management, and site restoration. But, the NRC’s attempt to accommodate such comingling has been difficult to apply because of the absence of any explicit authorization in the NRC rules. These proposed amendments, along with the additional allowance for site restoration, clarify the use of funds that licensees may have set aside or allocated for spent fuel management and site restoration.

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<sup>30</sup> Here, the term “excess funds” is intended to mean available funds in excess of the amount required to pay for radiological decommissioning.

<sup>31</sup> “Duke Energy Florida, Inc.; Crystal River Unit 3 Nuclear Generating Plant: Exemption; issuance,” 80 Fed.Reg. 5795, 5797 (Feb. 3, 2015)(“CR3 DTF Exemption”); *see also*, “Southern California Edison Company; San Onofre Nuclear Generating Station, Units 2 and 3: Exemption; issuance,” 79 Fed.Reg. 55,019, 55,021 (Sept. 15, 2014)(“SONGS 2&3 DTF Exemption”).

<sup>32</sup> CR3 DTF Exemption, at pg. 5797; *see also* SONGS 2&3 DTF Exemption, at 55,021 (NRC used substantially similar language in providing the SONGS exemptions).

It should also be noted that, if site restoration costs are not included as allowable costs under the proposed rulemaking, the stated goal of the rulemaking may not be fully achieved. Specifically, exemptions would still be required to use the funds for this purpose, which would not result in fully reducing the burden on the licensees and the NRC, and would not maximize regulatory efficiency. This is becoming even more important due to the changing nature of decommissioning. Historically, site restoration costs have been incurred late in the process, after radiological decommissioning has been completed, so the fund, in theory, would no longer be regulated by the NRC. However, the most recent successful decommissioning project (Zion Nuclear Power Station) performed site restoration concurrently with radiological decommissioning, and other recently shutdown reactors are planning similarly. The advantages to the overall schedule and associated cost of the project can be substantial if complimentary activities associated with decommissioning and site restoration are performed concurrently. There should be no spatial conflict between the decontamination/demolition of the power block and the demolition/restoration/final release of the vast majority of the rest of the site. The specific benefits of such parallel activities include:

- Provides for a shorter total schedule to site restoration and final release (excluding ISFSI)
- Eliminates risk of potentially requiring duplicate decontamination/remediation activities for radiological and non-radiological contaminants
- Utilizes similar equipment and labor resources
- Allows earlier site access for re-purposing

This model is also being incorporated into planning for sites that have recently entered into decommissioning, and will result in a more efficient and cost effective decommissioning process, which will strengthen the overall funding assurance position of a licensee for the reasons described above.

With respect to assessing the adequacy of funds for the purpose of allowing use of the DTF for site restoration, spent fuel management, and ISFSI decommissioning after permanent cessation of operations and defueling, we recommend that funding levels be assessed on a case-by-case basis, rather than focusing on 10 CFR 50.75(c). The minimum "formula" amount is valid for operating plants, but for plants that are undergoing decommissioning or standalone ISFSIs the formula amount is no longer applicable.

### ISFSI Decommissioning Costs

For clarity, it is also recommended that ISFSI decommissioning costs be included as allowable costs under this section. Furthermore, while current regulations allow the use of the DTF for ISFSI decommissioning for general licensees under 10 CFR 72, the provisions in this section should be updated to include specific licensees under 10 CFR 72 that are also 10 CFR 50 reactor licensees. This change is appropriate because there is no difference in how the funds are reported or used for these types of licensees.

### "Delineation" of Expenses in the DTF

Finally, it is unclear what is meant by the proposed requirement that licensees "delineat[e] these expenses in the DTF." NEI recommends that the NRC structure this requirement so that licensee's seeking to use excess DTF funds for site restoration, spent fuel management, and ISFSI decommissioning, would delineate the various categories of expenses or costs in reports required pursuant to 10 CFR 50.75(f) and 10 CFR 50.82(a)(8)(v) and (vii). Delineation of monies in the *DTF itself* is unnecessary and should not be required. This is consistent with the existing practice where license exemptions have been granted, and this is sufficient to maintain the same level of safety and funding assurance as exists today.<sup>33</sup>

### **Triennial Reporting Requirement**

The NRC proposes to amend the regulations to modify the reporting requirements in 10 CFR 50.75(f)(1) to be consistent with decommissioning funding assurance reporting requirements for ISFSIs in 10 CFR 72.30(c). The change to require decommissioning funding status reports on a triennial basis instead of on a biennial basis will result in regulatory consistency between 10 CFR 50.75 and 10 CFR 72.30, and hence is a change that should be implemented. NEI agrees with the proposed change, but the specifics of the change require further clarification.

### **Miscellaneous Expense Allowance**

The NRC proposes to amend the regulations in 10 CFR 50.75 and 10 CFR 50.82 to allow up to 1 percent of the DTF to be used for miscellaneous expenses related to decommissioning during operation. This proposed change allows the licensee additional flexibility, without imposing undue burden on the licensee or NRC. As stated in the

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<sup>33</sup> See, e.g., "Crystal River Unit 3 - Request for Exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(2)," March 28, 2014 (supported by cash-flow analysis delineating projected expenses for license termination (i.e., radiological decommissioning), spent fuel management, and site restoration); "Crystal River Unit 3 – Annual Decommissioning and Irradiated Fuel Management Financial Status Report for 2016," March 28, 2017 (using the same type of cash-flow analysis to delineate projected expenses for license termination, spent fuel management, and site restoration in order to demonstrate continuing decommissioning funding assurance).

draft RBD, this small amount of funds will not impact the funding assurance requirements. We support the proposed change, however additional clarification is necessary.

For example, it is unclear from the draft RBD how the “1 percent of the estimated total in the DTF at license termination” would be calculated. In addition, this calculation seems inconsistent with the related regulations and guidance, specifically 10 CFR 50.82 and Regulatory Guide 1.184, which allow 3 percent of the funds to be spent on decommissioning planning, and an additional 20 percent of the funds to be spent after the PSDAR comment period. Both of these amounts are calculated based on a percentage of the minimum formula amount in 10 CFR 50.75. It is recommended that the 1 percent allowance for miscellaneous expenses be consistent with the provisions of 10 CFR 50.82(a)(8)(ii) which states, “Initially, 3 percent of the generic amount specified in §50.75...” Maintaining consistency with the 3% and 20% disbursement milestones will minimize confusion and will avoid imposing additional burden on licensees and the NRC associated with calculating the new 1% allowance.

Furthermore, the existing language in the draft RBD should be clarified with regard to what expenses would be covered by this provision. The provision uses inconsistent language, alternatively calling the expenses “miscellaneous expenses to support decommissioning,” “miscellaneous expenses not directly related to decommissioning,” and “decommissioning expenses that might be incurred during operations.” This language should be modified to be consistent with the intent of the proposed change, and be clear that the expenses are not decommissioning expenses, as narrowly defined in 10 CFR 50.2. One possible solution is to use the existing definition of decommissioning costs as more broadly defined in Treasury Regulation Section 1.468A, which governs tax-qualified funds, specifically Section 1.468A-1(b)(6) states:

The term nuclear decommissioning costs or decommissioning costs includes all otherwise deductible expenses to be incurred in connection with the entombment, decontamination, dismantlement, removal and disposal of the structures, systems and components of a nuclear power plant, whether that nuclear power plant will continue to produce electric energy or has permanently ceased to produce electric energy. Such term includes all otherwise deductible expenses to be incurred in connection with the preparation for decommissioning, such as engineering and other planning expenses, and all otherwise deductible expenses to be incurred with respect to the plant after the actual decommissioning occurs, such as physical security and radiation monitoring expenses. Such term also includes costs incurred in connection with the construction, operation, and ultimate decommissioning of a facility used solely to

store, pending acceptance by the government for permanent storage or disposal, spent nuclear fuel generated by the nuclear power plant or plants located on the same site as the storage facility.

### **Correction of Shortfalls within Three Years**

The NRC proposes to amend the regulation at 10 CFR 50.75(b) to correct shortfalls on a timely basis, within three years from when the shortfall was initially reported. This change is consistent with the current regulatory requirement to correct a shortfall prior to the next decommissioning funding status report, except that it changes the time frame to be consistent with the change to triennial reporting, and hence is consistent with the regulatory principle of consistent regulations. Currently, the amount of time a licensee has to correct a shortfall is contained in a guidance document only (Regulatory Guide 1.159).

The three year period for correcting shortfalls for non-electric utility facilities should be specified in the regulation. In addition, for electric utility facilities, the regulation should make clear that reasonable assurance is provided so long as the electric utility has articulated a plan to address any shortfall in a future regulatory filing establishing its cost of service rates, but the specific time frame to correct the shortfall should be determined by the state regulatory agency. This will result in regulatory certainty, strengthening the NRC's ability to ensure decommissioning funding assurance.

It is also recommended that this change be included in 10 CFR 50.82 for shutdown reactors. This proposed change would allow decommissioning reactors in a SAFSTOR condition to be able to take advantage of this provision, without sacrificing the level of financial assurance. This is the case since a reactor could remain in SAFSTOR status for an extended period, during which time maintenance expenses would be small and, therefore, annual corrections due to short term market forces would be unnecessary. For reactors undergoing active decommissioning, the rules in place in 10 CFR 50.82 limiting disbursements from the trust funds would still apply, so that the availability of funding to complete decommissioning is assured. This rule, along with the required annual report for decommissioning sites, would provide the funding assurance and level of safety required for these situations.

## Site Specific Cost Estimates

NEI strongly opposes any rule changes that would require site specific cost estimates for all licensees in lieu of the existing generic minimum formula amount in 10 CFR 50.75(c) (a possibility suggested by Question 10 in the draft RBD). The NRC's regulations ensure adequate decommissioning funding by requiring that the 'bulk of funds' for decommissioning be provided during a plant's operating life, *either* through the use of the generic minimum funding amount described in 10 CFR 50.75(c) *or* a site-specific cost estimate that is greater than that amount.<sup>34</sup> The current regulations adequately ensure that decommissioning funding assurance is provided throughout life of a nuclear power facility. Specifically, the current regulations already require that the licensee have a preliminary decommissioning cost estimate (DCE) 5 years prior to shutdown, and submit a final DCE within 2 years following permanent cessation of operations.<sup>35</sup> The requirement for a site specific DCE near plant shutdown is appropriate, since this will allow additional detail related to the licensee plans to be reviewed by the NRC in conjunction with the actual decommissioning planning done by the utility. Before this point, the minimum formula amount in 10 CFR 50.75(c) is adequate to ensure that the bulk of the funds for decommissioning are available when needed. The potential for additional license extensions increases the uncertainty associated with developing DCE's early in the licensed life of a plant. Even for a premature shutdown, the regulations are effective in ensuring adequate funding assurance, since a site-specific estimate would be required within 2 years, and access to the funds are limited until the site-specific estimate has been submitted.

The generic, rule-based formula described in 10 CFR 50.75(c) provides an effective and consistent method for determining the amount of decommissioning funding assurance required during plant operation. This approach to regulating funding assurance has served the NRC, industry, and the public well. The generic approach also embodies several of the Commission's principles of good regulation, including openness, efficiency, clarity, and reliability. Requiring the use of site-specific cost estimates as the basis for determining adequate decommissioning funding assurance during operation would not provide any significant safety or security benefit, and – as discussed in

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<sup>34</sup> See "General Requirements for Decommissioning Nuclear Facilities," 53 Fed. Reg. 24,018, 24,030 (June 27, 1988) ("The amount listed as the prescribed [formula] amount does not represent the actual cost of decommissioning for specific reactors but rather is a reference level established to assure that licensees demonstrate adequate financial responsibility that the bulk of the funds necessary for a safe decommissioning are being considered and planned for early in facility life, thus providing adequate assurance at that time that the facility would not become a risk to public health and safety when it is decommissioned."); See also, "Staff Findings on the Table of Minimum Amounts Required to Demonstrate Decommissioning Funding Assurance," SECY-13-0066 (June 20, 2013).

<sup>35</sup> See 10 CFR 50.75(f), 50.82(a)(8)(iii).

Preliminary Draft Regulatory Analysis<sup>36</sup> -- would decrease regulatory efficiency and impose significant burden on licensees. Imposition of such a change through this rulemaking would also constitute backfitting and must be analyzed pursuant to the requirements of 10 CFR 50.109 prior to being imposed on licensees.

Additionally, as discussed in the draft RBD, several studies have shown that the minimum formula amount is still representative of the bulk of decommissioning costs, using the existing escalation provision in 10 CFR 50.75. The Table of Minimum Amounts has been recently verified to establish "a minimum standard, or reference level" of funds to show decommissioning financial assurance is provided as intended.<sup>37</sup> Also, the current process of updating NUREG-1307 is an effective way to address new information on waste burial rates, as well as labor and energy costs, in a clear and transparent manner. The draft RBD states, however, that "[t]he staff may consider revising NUREG-1307, Rev. 15 . . . to address additional considerations impacting the formula and to improve the clarity of the guidance."<sup>38</sup> Both the process of updating NUREG-1307 and the content of the document have substantially improved over the past five years. NEI strongly opposes any changes to NUREG-1307, aside from those incorporated through the standard process for updating the document to support submittal of the biennial licensee decommissioning funding status reports.

The validity of the generic, minimum formula amount was also considered in the 1988 rulemaking which established decommissioning funding assurance regulations. At that time, the NRC explained:

The amount listed as the prescribed amount does not represent the actual cost of decommissioning for specific reactors but rather is a reference level established to assure that licensees demonstrate adequate financial responsibility that the bulk of the funds necessary for a safe decommissioning are being considered and planned for early in facility life, thus providing adequate assurance at that time that the facility would not become a risk to public health and safety when it is decommissioned.<sup>39</sup>

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<sup>36</sup> "Preliminary Draft Regulatory Analysis for Regulatory Basis: Regulatory Improvements for Decommissioning," May 2017, at pgs. 61, 115.

<sup>37</sup> See "Staff Findings on the Table of Minimum Amounts Required to Demonstrate Decommissioning Funding Assurance," SECY-13-0066 (June 20 2013) ("At this time, NRC staff does not recommend revising the Table of Minimum Amounts, as found in 10 CFR 50.75(c)(1), or the adjustment factors at 10 CFR 50.75(c)(2). The formula in 10 CFR 50.75(c) successfully establishes a common minimum standard measurement, or reference level, to which each licensee must accumulate committed financial resources during the life of the operating license as it was intended. . . .").

<sup>38</sup> Draft Regulatory Basis, at pg. F-4.

<sup>39</sup> 53 FR 24018, 24030.

Nothing has changed since that time to invalidate this reasoning, and hence, there is no basis to change the existing regulations in this area.

Therefore, there is no added safety or financial assurance benefit from requiring a site-specific DCE earlier than that required by existing regulations. There would be no improvement to the reasonable assurance provided by the minimum formula amount that the facility would not become a risk to the public health and safety when it is decommissioned, which is the intent of the regulation. In addition, creating a site specific DCE for each site would create additional burden and expense on the licensee and NRC. Hundreds of hours and significant dollars would be required to produce and review the cost estimates. Furthermore, this will impose new burdens on the licensee to submit these DCEs and respond to NRC questions, and impose the burden on the NRC to review these DCEs, which would require significant resources. New NRC staff personnel would be required to conduct the review of hundreds of estimates with updates every 5 years. Yet, it has not been shown that this would create any benefit to safety or funding assurance. Furthermore, the proposed SSCE update frequency (i.e., years 1-35 at 5 year intervals; annually thereafter) does not account for periods of extended operation, which would further increase the burden on both the licensees and the NRC.

Finally, Appendix F states that none of the options being considered by the NRC in the area of decommissioning funding would constitute backfitting or violate the issue finality provisions of Part 52. But that conclusion does not seem to consider the fact that a change in the regulations *to require* use of site-specific cost estimates by operating reactor licensees for the purpose of demonstrating adequate decommissioning funding assurance would certainly constitute backfitting and raise issue finality concerns. Any further consideration of this option should be informed by the analyses required by 10 CFR 50.109, as well as the relevant provisions of Part 52. Given the discussion provided above, we do not believe that amending the Commission's regulations to require such cost estimates would yield a substantial increase in public health and safety or common defense and security, nor would the benefits of such a change be justified in light of the associated costs.

In summary, this proposal is contrary to the principle of regulatory efficiency, and would not provide any additional level of safety or funding assurance.

### **Additional Accompanying Administrative Changes**

The additional accompanying administrative changes on page F-12 will provide additional clarity to the regulations and are warranted.

## **Miscellaneous Provisions and Comments**

The following comments are provided to help ensure clarity and consistency within the draft RBD document, and provide insight on several miscellaneous items within the document not mentioned in the previous comments.

On page F-1, the draft RBD states that there is a “requirement for licensees to provide a minimum decommissioning fund per the formula defined in Title 10 of the Code of Federal Regulations (10 CFR) Section 50.75(c).” In fact the regulations do not require that licensees provide a decommissioning fund, but instead only provide reasonable funding assurance using the methods described in 10 CFR 50.75. We suggest replacing “fund” in this sentence with “funding assurance” to be consistent with existing regulations.

On page F-2, the second paragraph references the 1998 rule and states that licensees would be required to have a decommissioning fund “less credit for 2 percent real rate of return.” In fact that rule actually allows a higher rate of return if the utility has the ability to collect additional funds through an external sinking fund, and that rate has been approved by the applicable state utility commission.

On page F-3, the draft RBD states that, “This table of minimum amounts establishes the minimum amount that a licensee has to set aside to provide reasonable assurance that there will be sufficient money to pay for radiological decommissioning.” Again there is no requirement for a licensee to specifically “set aside” an amount equal to the minimum formula amount, but instead, only to provide reasonable assurance of that amount being available in accordance with the methods in 10 CFR 50.75. Suggest deleting “that a licensee has to set aside,” and replacing these words with “required for a licensee,” to be consistent with existing regulations.

## **Appendix G - Offsite and Onsite Financial Protection Requirements and Indemnity Agreements**

### **Overview**

In Appendix G of the draft RBD, the NRC proposes to amend its rules regarding the amount of offsite and onsite financial protection required for decommissioning plants. Specifically, the NRC is recommending a graded approach to insurance requirements as follows:

Level	Description	Offsite Requirement	Onsite Requirement
1	Permanently ceased operations and permanently defueled	\$450M; participation in industry retrospective rating plan	\$1.06B
2	(1) Transition after a specific amount of cooling time in Level 1, or (2) transition after an alternative timeframe based on a site-specific analysis that shows the fuel cannot heatup to clad ignition temperature within 10 hours under adiabatic conditions.	\$100M	\$50M
3	All spent fuel transferred to an ISFSI	\$50M	\$50M
4	All spent fuel and radioactive material removed from site	\$25M	\$25M/eliminated

NEI supports NRC's recommendation to conduct rulemaking to amend the offsite and onsite financial protection requirements for decommissioning reactors under a graded approach. However, as explained further below, NEI proposes that the NRC create an additional level – proposed as a new Level 3C – that reflects the configuration of a decommissioning plant that is a "standalone" ISFSI (i.e., all decommissioning activities are complete except for those associated with the spent fuel that remains on the ISFSI).

NEI also proposes breaking out previous Level 4 ("all spent fuel and radioactive waste removed from site") into two Levels: Level 3B (when less than 1,000 gallons of liquid radwaste remains onsite, and all spent fuel remains in the ISFSI) and Level 4 (when all spent fuel and radioactive waste is removed from the site, decommissioning activities are complete, and all that remains is the confirmation survey for license termination). The inclusion of Level 3B will be helpful, since, in the NRC proposed levels, this is included in Level 4, which does not adequately describe this configuration (since all spent fuel is not necessarily removed from the site). Level 3A would apply when all spent fuel is in the ISFSI and more than 1,000 gallons of liquid radwaste remains onsite. These additional levels will ensure that financial protection requirements most accurately reflect the risks presented by licensees in different stages of decommissioning. The proposed changes to the Levels are consistent with the proposed changes in the comments to Appendix A.

The following table depicts NEI's proposal for financial protection requirements.

Level	Description	Offsite Requirement	Onsite Requirement
1	Permanently ceased operations and permanently defueled	\$450M; participation in industry retrospective rating plan	\$1.06B
2	(1) Transition after a specific amount of cooling time in Level 1, or (2) transition after an alternative timeframe based on a site-specific analysis that shows the fuel cannot heatup to clad ignition temperature within 10 hours under adiabatic conditions.	\$100M	\$50M – bounding event: rupture of large liquid radwaste tank
3A	All spent fuel transferred to an ISFSI (> 1,000 liquid gal tank remains onsite)	\$50M	\$50M – bounding event: rupture of large liquid radwaste tank
3B	All spent fuel transferred to an ISFSI (< 1,000 liquid gal tank remains onsite)	\$25M	\$25M – bounding event: rupture of < 1,000 gallon liquid radwaste tank
3C	Standalone ISFSI (decommissioning activities complete except those related to ISFSI; no	\$25M	\$0 - no liquid radwaste onsite

	radioactive inventory onsite other than ISFSI)		
4	All spent fuel and radwaste removed from site (decommissioning activities complete; only remaining activity is confirmation survey for license termination) <sup>40</sup>	\$1M	\$0 – no liquid radwaste onsite

### Offsite and Onsite Financial Protection Amounts

NEI agrees that at Level 2, the offsite protection requirements should be adjusted to \$100M and that withdrawal from the industry retrospective rating plan is appropriate.<sup>41</sup> NEI also agrees that the offsite protection requirements should be adjusted to \$50M at Level 3A (all spent fuel is in the ISFSI and more than 1,000 gallons of liquid radwaste remains onsite), and onsite protection requirements should be adjusted to \$50M for both Levels 2 and 3A. These levels are conservatively aligned with the levels of offsite and onsite risks that apply at those stages of decommissioning.

To ensure that the required offsite and onsite financial protection requirements more appropriately reflect risks, a new Level 3C should be created to address plants at an advanced stage of decommissioning where all that remains onsite is spent fuel housed in the ISFSI (and associated administrative buildings and equipment required to maintain the ISFSI), referred to as a "standalone" ISFSI site. At this stage, the offsite financial protection amount should be reduced to \$25M, which reflects the fact that decommissioning activities are complete and no longer taking place, except for actions associated with transferring the spent fuel from the ISFSI offsite. Fuel in dry storage remains safe in robust, passive structures with no design basis accidents that could lead to offsite consequences. The risks associated with a hypothetical beyond-design-basis accident are sufficiently low that there is no need for higher levels of liability insurance.

Furthermore, the onsite financial protection amount at NEI's proposed Level 3C (Standalone ISFSI) should be reduced to zero. In the draft RBD, the NRC explains that the basis for proposed onsite insurance amounts of \$50M and \$25M at NRC-proposed

<sup>40</sup> The offsite nuclear liability insurance requirement would end at NRC license termination.

<sup>41</sup> The Staff notes (at p. G-11) that in SECY-01-0100, the NRC stated that many licensees who were granted exemptions to reduce offsite liability from \$375M to \$100M nevertheless voluntarily chose to maintain \$375M. The Staff suggests that this indicates industry's belief that \$100M is insufficient for Level 2 offsite protection amounts. This suggestion is unsupported, and should not affect NRC's recommended protection amounts.

Levels 3 and 4, respectively, is the mobile radioactive inventory at the site pending decommissioning and the potential scenario of a rupture of a slightly contaminated liquid radwaste tank. But, in a Standalone ISFSI configuration (Level 3C), decommissioning will have been completed for all of the former site except the ISFSI. There will therefore be no mobile radioactive inventory. Also, no liquid radioactive waste is being stored in tanks at the site under Level 3C, and thus the potential rupture scenario does not apply.

A new Level 4 (encompassed under NRC-proposed Level 4) would apply when all spent fuel and radioactive waste is removed from the site and all decommissioning activities are complete except for the confirmation survey for license termination (some of which may already have been completed). At this stage, NEI proposes that the offsite financial protection requirements be reduced to \$1M, and the onsite financial protection requirements be wholly eliminated. NEI acknowledges the NRC's position that, as long as a licensee retains its Part 50 license, it is subject to some form of offsite financial protection requirement under the Price-Anderson Act. Thus, although the offsite consequences of an event would be negligible (if any), the NRC may nevertheless require that facilities maintain some minimal offsite insurance.<sup>42</sup> Given a reasonable assessment of the risks, NEI proposes that licensees that no longer possess either a plant or spent fuel should not be required to maintain more than \$1M in offsite protection.

With respect to onsite insurance for Level 4, as at Level 3C there will be no mobile inventory of radioactive material and the NRC's bounding event of a contaminated liquid storage tank rupture would no longer apply. Because there would be no fuel onsite, there are no hypothetical events that would require nuclear property insurance. (A licensee may, of course, continue to carry normal commercial property and liability insurance.) Thus, the amount of onsite protection at this level should be reduced to zero.<sup>43</sup>

### **Response to Federal Register Notice Question #11**

In the Federal Register notice for the draft RBD, the NRC sought public input on the following question:

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<sup>42</sup> Nonetheless, NEI believes that the Price-Anderson statute does not compel this conclusion so long as the NRC determines that the risk of offsite damages is sufficiently hypothetical and remote – which would be the case for licensees in this phase.

<sup>43</sup> Unlike for offsite financial protection requirements, there is no analogous Price-Anderson Act provision requiring onsite financial protection for holders of licenses issued under Section 103 of the Atomic Energy Act.

*11. If the NRC takes this approach [a rulemaking to adjust the amounts of financial protection required for decommissioning licensees], should the NRC apply this requirement to licensees who already have exemptions from insurance requirements and whose levels of insurance have not been adjusted for inflation?*

As stated in NEI's discussion of the applicability of the Decommissioning Rule, this rule should not be imposed on reactors that have already entered into decommissioning prior to the effective date of the rule. The NRC has already determined through exemptions that the financial protection amounts for those reactors are adequate, and there is no legal or regulatory basis on which to change those plants' current licensing basis. Moreover, as acknowledged by the NRC, there is no safety or security deficiency underpinning this rulemaking and thus, there is no safety or security basis on which to impose any adjusted financial protection amounts on licensees already in decommissioning. But, should those reactors choose to follow any adjusted amounts of financial protection resulting from this rulemaking, they should be free to do so without further NRC licensing action.

Implicit in the NRC's question is the issue (discussed in the draft RBD at p. G-11) of whether the NRC should adjust the proposed financial protection amounts for inflation. Because the proposed amounts of financial protection are already conservative, there is no compelling basis to adjust for inflation at this time. As suggested as in the draft RBD, the NRC may consider revisiting these figures on a periodic basis in the future.

### **Application to Part 72 Specific ISFSI Licensees**

The NRC states on p. G-12 that if rulemaking is pursued to adjust the financial protection amounts, "it would involuntarily impose financial protection requirements for ISFSIs." NRC appears to suggest that any financial protection requirements, although not currently applicable to Part 72 specific ISFSI licensees, would be subsequently imposed on those licensees in order to treat them consistently with general ISFSI licensees. NEI opposes any involuntary imposition of financial protection requirements on specifically-licensed ISFSIs. The NRC has not cited any technical, legal, or regulatory basis to impose any such requirements. Part 72 specific licensees are not included in the class of licensees required to have offsite protection under the Price-Anderson Act, and thus, there is no statutory basis on which to impose financial protection requirements. Insurance amounts for these facilities have been addressed on a site-specific basis. Imposing new requirements would constitute a backfit, triggering NRC's obligations under 10 CFR 72.62 to justify their imposition.

## **Appendix H -Current Regulatory Approach to Decommissioning**

### **Overview**

Appendix H discusses the following four topics: (1) the level of PSDAR review and approval by NRC, (2) the appropriateness of maintaining the existing options for decommissioning, (3) the 60-year timeframe associated with decommissioning, and (4) the role of state and local governments and non-governmental stakeholders. In evaluating these topics, the NRC staff reviewed NRC and industry reports, technical reports created by EPRI, existing NUREGs and other agency technical documents, as well as earlier decommissioning rulemakings. Appendix H describes the NRC staff's conclusions, as follows:

Based on its evaluation of the above documents and the ongoing implementation of the decommissioning regulations promulgated by the 1988 and 1996 rules, the NRC staff concluded that the current decommissioning regulations with respect to the four subjects identified above are sufficient to protect public health and safety and the environment because the underlying technical conclusions that support the regulations have not changed. Specifically, the NRC staff determined that the previous conclusions in areas such as overall source term present at the sites, the volume of radiological waste produced during decommissioning, the time necessary for radiation to decay to a certain level, and the overall costs associated with decontamination and dismantlement have remained valid for facilities undergoing decommissioning since the 1996 rule change. In addition, current experiences with decommissioning facilities indicate that the overall process is being implemented in a manner that is consistent with the intent of both the 1988 and 1996 rules; namely, that decommissioning will be accomplished in a safe and timely manner, that adequate funds will be available for this purpose, and that the rule will reduce regulatory burden, provide greater flexibility, and allow for greater public participation in the decommissioning process.<sup>44</sup>

We agree with these conclusions and, thus, oppose any changes to the regulations or guidance associated with the topics described above. The basis for our support of these conclusions is provided below.

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<sup>44</sup> Draft Regulatory Basis, at pg. H-2.

## Level of PSDAR Review and Approval by the NRC

NEI strongly supports Option 1, which would maintain the existing regulatory framework and guidance on preparation and review of the PSDAR. In its assessment of Option 1, the NRC staff concludes:

Maintaining the current regulations with respect to the PSDAR would continue to meet the safety and regulatory goals envisioned by the 1996 decommissioning rule, would maintain regulatory efficiency and flexibility, and would have no additional impact on future plants intending to transition to a decommissioning status. The continued use of the current requirements for the level of detail required in the PSDAR, the NRC's review of the PSDAR, and implementation of the 10 CFR 50.59 process to enact changes at a decommissioning facility ensures adequate protection of the health and safety of the public.<sup>45</sup>

Despite its conclusions that maintaining the current framework with respect to the PSDAR would meet the Commission's goals envisioned by the 1996 decommissioning rule, maintain flexibility, and continue to ensure adequate protection of public health and safety, the NRC staff recommends Option 2. In Option 2, the staff suggests that RG 1.185, "Standard Format and Content for Post-Shutdown Decommissioning Activities Report" (ADAMS Accession No. ML13140A038) should be updated to "encourage licensees to add additional detail on topics already required to be included in the PSDAR in the areas that are of greatest interest to those stakeholders impacted by the decommissioning process," while not imposing additional burden on the licensee.<sup>46</sup>

NEI opposes the changes to agency guidance discussed in Option 2. The NRC's guidance on the content of PSDARs should focus on the information necessary for the agency to fulfill its regulatory responsibilities with respect to review of the PSDAR and oversight of the decommissioning process. The type of information and level of detail to be provided in the PSDAR should not be driven by "the areas that are of greatest interest" to stakeholders. Transparency and public access to information that the NRC determines is necessary to support regulatory decision-making and oversight is an important part of the NRC's regulatory programs. NEI believes that this has been successfully accomplished at previously decommissioned and currently decommissioning plants. The current requirements and guidance ensure that the PSDARs are sufficiently detailed to allow NRC to evaluate compliance and ensure adequate protection of the health and safety of the public in an open and transparent manner. There is no valid regulatory basis for the NRC to modify its guidance to "encourage"

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<sup>45</sup> *Id.* at H-7.

<sup>46</sup> *Id.*

licensees to provide additional detail the PSDAR, and including such guidance in RG 1.185 would potentially increase the licensee's reporting burden with no corresponding improvement to safety or security. This would contradict NRC's stated objective for this rulemaking of improving decommissioning efficiency.

For example, Appendix H suggests that the NRC's guidance on preparation of PSDARs be modified to encourage licensees to explain "why a particular decommissioning strategy and timeline was chosen over any others, including the associated cost estimate over time for all of the strategies considered."<sup>47</sup> This revision would unnecessarily complicate the preparation of PSDARs. As long as the approach described in the PSDAR complies with the relevant regulatory requirements and does not raise health and safety or security concerns, it is unclear what regulatory purpose would be served by the licensee describing alternatives that were not selected. Moreover, encouraging licensees to include a cost estimate for all of the decommissioning strategies – including approaches that were considered, but not selected – could impose considerable costs with no obvious health and safety or security benefits, or improvements to efficiency (again, contradicting the stated objective of this rulemaking). Likewise, the NRC staff suggests that licensees provide details regarding their plans for community engagement – such as formation of community advisory groups – in the PSDAR. Again, it is unclear what regulatory purpose this information would serve to the NRC. Community engagement is an important part of the decommissioning process, however the extent and form of that engagement is best defined organically, through interactions between the licensee, community leaders, and – to the extent appropriate – the NRC.

Another change suggested under Option 2 would encourage licensees to include "[a] discussion of how the licensee would maintain stewardship and compliance with all Federal, State and local regulations in effect during decommissioning, including non-radiological effluent releases, waste management, environmental monitoring, emergency planning considerations, and environmental statutes such as the Endangered Species Act and National Historic Preservation Act." Requiring or "encouraging" licensees to provide a description of how they will comply with all federal, state, and local regulations that apply or may come into existence during a decommissioning process that could span decades is overly broad and unnecessary. As stated above, the NRC's guidance on the information to be included in the PSDAR should be based on what information the agency needs fulfill its regulatory mandate. Information on how the licensee will comply with regulatory requirements that do not directly affect the NRC's regulatory decision-making, or the agency's safety-focused

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<sup>47</sup> *Id.*

oversight of the decommissioning project is simply not relevant, and the licensee should not be required or “encouraged” to include such information in the PSDAR.

With respect to “emergency planning considerations,” there is already a process in place to address these considerations. The Threat and Hazard Identification and Risk Assessment (THIRA) process has been established by the Federal Emergency Management Agency (FEMA) for use by communities in understanding potential risks and response capabilities. A State or community may elect to perform a THIRA related to a decommissioning site that has entered Levels 2, 3 or 4 (i.e., levels where formal REP programs are no longer required by NRC regulations). If requested, a licensee may provide technical information useful in completing the assessment. Given that there is an existing Federal agency process to address “emergency planning considerations,” and the performance of this process is at the discretion of State and local governments, there is no basis for including a discussion of these considerations in a PSDAR.

Option 2 would also include “guidance that encourages licensees to provide an additional discussion of what considerations and site-specific issues would be addressed in the LTP when it is submitted because that document contains a greater level of detail than the PSDAR regarding remediation activities, final site disposition, and overall decommissioning completion.”<sup>48</sup> But the LTP may not be submitted for many years, if not decades, after the PSDAR is developed and submitted by the licensee. It would be premature to expect the licensee to predict and provide details regarding the site-specific issues that will be eventually addressed in the LTP.

In summary, providing additional detail in the PSDAR would increase the burden on licensees with no corresponding improvement to safety, security, or the efficiency of the decommissioning process. Thus, the changes proposed under Option 2 should not be pursued.

### **The Appropriateness of Maintaining the Three Existing Options for Decommissioning**

NEI strongly supports Option 1, which would retain the current regulations and guidance governing decommissioning methods.<sup>49</sup> In its assessment of Option 1, the staff concludes:

Because the NRC does not expect additional safety improvements from options other than SAFSTOR and DECON, maintaining the current regulatory environment with respect to the methods available for decommissioning will

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<sup>48</sup> *Id.*

<sup>49</sup> *Id.* at pg. H-15.

continue to meet the safety and regulatory requirements envisioned by the current decommissioning regulations, and will have no additional impact on future plants intending to transition to a decommissioning status. The continued use of guidance documents to discuss the decommissioning options is an adequate forum to aid licensees in formulating a decommissioning strategy because it maintains the flexibility envisioned by the 1996 decommissioning rule, allows licensees to govern their own decommissioning approach and timeframe, and is protective of public health and safety.<sup>50</sup>

Despite its conclusions that the existing regulatory framework ensures safety, is adequate to aid licensees in developing decommissioning strategy, provides an appropriate level of flexibility, and is protective of public health and safety, the NRC staff recommends Option 2. Option 2 is described as providing “an additional level of detail related to current requirements in the PSDAR and associated documents on topics that have been a concern for many stakeholders, without the need to further formalize PSDAR, DCE, or IFMP content in the NRC regulations.”<sup>51</sup> The NRC staff goes on to state that because “the majority of licensees tend to use these documents as the roadmap for assembling documents submitted to the NRC” the revisions to RG 1.184, 1.185, and the Decommissioning GEIS “could lead to an overall enhancement in the decommissioning documents submitted to the NRC.”<sup>52</sup> But neither the draft RBD nor the preliminary draft regulatory analysis provides any meaningful evaluation of the “enhancements” that would flow from these changes.<sup>53</sup> As with the proposed changes to the guidance relating to PSDAR review discussed above, the current guidance appears to adequately facilitate sound regulatory decision-making and oversight by the NRC during the decommissioning process. Therefore, there appears to be no sound regulatory basis for expending NRC and licensee resources to revise guidance that is already serving its intended purpose.

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<sup>50</sup> *Id.* at pg. H-16.

<sup>51</sup> *Id.* at pg. H-17.

<sup>52</sup> *Id.*

<sup>53</sup> The benefits associated with these changes are discussed briefly in narrative form and are not further explained or evaluated in Section 6.0 of the preliminary draft regulatory analysis. For example, on page H-17 of the draft regulatory basis document, the NRC staff states that the changes proposed under Option 2 would “greatly reduce or eliminate the NRC staff’s need to ask the licensee additional questions as part of the PSDAR, DCE, and IFMP process.” But the staff provides no detail on the number of questions that are typically required under the current guidance, or precisely how the proposed changes would “greatly reduce or eliminate” the need for those requests.

For example, under Option 2 the NRC would encourage licensees to provide additional detail in the PSDAR, DCE, IFMP, including a description of the decision making process regarding the selection of specific decommissioning methods; how the facility would “optimize” cost, institutional knowledge, and socioeconomic impacts; and potential future uses of the site. The draft RBD does not explain the regulatory purpose this type of information would serve (*i.e.*, why the NRC needs this information in order to fulfill its mission). As explained above, the scope and level of detail required in licensee submittals should be driven, in the first instance, by the NRC’s need for the information to aid in regulatory decision-making or oversight of the safety of the decommissioning process to ensure protection of public health and safety, and the common defense and security. The draft RBD does not define any regulatory gap that these revisions would fill. Requesting that licensees provide the additional detail described in this section would increase the burden on licensees with no corresponding improvement to safety, security, or the efficiency of the decommissioning process. Thus, the changes proposed under Option 2 should not be pursued.

Option 2 would also involve removal of the ENTOMB option. While the industry does not contemplate using the ENTOMB option under current conditions, there may be unexpected conditions that arise in the future that would warrant selection of that option. Selection of ENTOMB in the future would require extensive interaction between the NRC and the licensee to ensure compliance with the NRC’s decommissioning requirements, as well as the license termination rule. Thus, it seems there is little benefit from revising the guidance to remove the option at this time.

### **The 60 Year Timeframe Associated with Decommissioning**

NEI strongly recommends Option 1, which would retain the provisions of the current regulations and guidance governing the decommissioning timeframe available to licensees. In its assessment of Option 1, the NRC staff concludes:

In determining whether the 1988 and 1996 decommissioning requirements regarding the timeframe for completion of decommissioning remain sufficient to address ongoing and future decommissioning activities, the NRC staff evaluated the technical and regulatory bases associated with both the 1988 and the 1996 decommissioning rules, as well as the associated technical documents (*i.e.*, NUREG/CR-0130, “Technology, Safety, and Costs of Decommissioning a Reference Pressurized Water Reactor Power Station,” and NUREG/CR- 0672,

"Technology, Safety, and Costs of Decommissioning a Reference Boiling Water Reactor Power Station"), SOCs, public comments, and comments received to date on this rulemaking. Based on this review, the NRC staff concluded that the bases for the 60-year decommissioning timeframe remain valid for current decommissioning activities and no additional safety improvements from a change in the timeframe available to complete decommissioning activities are expected.

The NRC staff did note that the overall radiological dose and waste volumes created during the immediate decommissioning process (i.e., DECON) may no longer be as high as those determined by NUREG/CR-0130 and NUREG/CR-0672 due to the implementation of new dismantlement and remediation technologies since the publication of those documents. However, the NRC staff also determined that these changes were not significant enough to meaningfully enhance public health and safety should the decommissioning timeframe be shortened. Furthermore, decommissioning can and has been completed safely under the SAFSTOR process using the current regulatory timeframe. As such, maintaining the current regulatory environment with respect to the 60-year limit for decommissioning will continue to meet the safety and regulatory requirements envisioned by the 1988 and 1996 rules, will have no additional impact on future plants intending to transition to a decommissioning status, and will ensure that adequate protection of the health and safety of the public is ensured.<sup>54</sup>

Despite its conclusions that the 60-year timeframe is protective of public health and safety, and continues to meet the safety and regulatory requirements envisioned by the 1988 and 1996 decommissioning rulemakings, the NRC staff recommends Option 2. Under Option 2, "the NRC staff would update or create guidance documents to address the timeframe available to decommission power reactors."<sup>55</sup> More specifically, Option two would involve a revision to RG 1.184 to:

[I]nclude a discussion of the basis for the 60-year decommissioning timeline, including what framework was used to establish the initial timeframe, why the assumptions used to support the 1988 decommissioning rule remain valid today, even considering advances in dismantlement and decontamination technologies, and a provision that the health and safety of the public is maintained within the current regulatory framework.<sup>56</sup>

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<sup>54</sup> *Id.* at pg. H-21.

<sup>55</sup> *Id.*

<sup>56</sup> *Id.*

Much of the remaining discussion of Option 2 simply repeats the discussion provided in the section of the draft RBD addressing the current decommissioning options (*i.e.*, SAFSTOR, DECON, and ENTOMB).<sup>57</sup> Given the staff's conclusions regarding Option 1 on the decommissioning timeframe, we do not believe any changes to NRC's guidance are necessary to address the bases or validity of the 60-year timeframe.

In summary, modifying the existing guidance to provide additional detail on the basis for the 60-year decommissioning timeframe would provide no improvements to safety or security and would contradict the stated primary objective of this rulemaking to improve the efficiency of the decommissioning process. All of the information relied upon by the NRC staff to reach the conclusions in the draft RBD should be publicly available, and the staff's assessment of this issue in the final regulatory basis document would serve the same clarifying purpose as revisions to RG 1.184. Thus, the changes proposed under Option 2 should not be pursued.

### **The Role of State and Local Governments and Non-Government Stakeholders**

NEI strongly recommends Option 1, which would maintain the provisions in the current decommissioning regulations and guidance regarding NRC's expectations for external stakeholder involvement in the decommissioning process.<sup>58</sup> In its assessment of Option 1, the NRC staff concludes:

Because the AEA requires NRC to be an independent regulator, any formal NRC sponsorship or participation in a local advisory panel could be viewed as biased by all participants. During the decommissioning process, the NRC requires the maintenance of the current regulatory environment with respect to the expectations for public, State and local government, and other stakeholder involvement in the decommissioning process would continue to meet the safety and regulatory requirements envisioned by the 1996 decommissioning rule, and would have no additional impact on current or future plants intending to transition to a decommissioning status. Nonetheless, openness is among the NRC's organizational values and Principles of Good Regulation, and it is the NRC's general policy to share information with the public in a transparent manner. As such, the NRC would encourage licensees to continue to create some form of community advisory board at decommissioning facilities.

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<sup>57</sup> See *id.* at pgs H-21-H-22, H-17-H-18.

<sup>58</sup> *Id.* at pg. H-25.

The continued use of guidance documents to discuss best practices for establishing community advisory boards is an adequate forum to aid licensees in formulating an overall decommissioning strategy in regard to stakeholder participation. In addition, all currently decommissioning facilities have already established community advisory boards; additional NRC direction in this area would reduce the flexibility currently available to decommissioning licensees and the associated parties impacted by the decommissioning activities to tailor these committees to suit the needs of, and stakeholder interest in, the decommissioning of the facility, with little additional benefit to public health and safety.<sup>59</sup>

Despite its conclusions that the current guidance on stakeholder participation is adequate, the NRC staff recommends Option 2. Under Option 2, the staff would update several guidance documents to:

[I]nclude a discussion of best practices for creating a community advisory board at decommissioning facilities, including suggested best practices for membership, the anticipated level of community advisory board activity and involvement in the decommissioning process, and ways in which to leverage the community advisory board to assist in making decommissioning decisions.<sup>60</sup>

Implementation of the modifications to the NRC's guidance under Option 2 would not result in any increase in the NRC's ability to ensure protection of the public health and safety, or the common defense and security. To the contrary, the staff repeatedly concludes that the agency's current regulatory framework with respect to the four topics discussed in Appendix H are protective of public health and safety, and the draft RBD provides no information suggesting that either requiring, or revising the guidance associated with, the formation and management of community advisory boards would enhance the safety or security of the decommissioning process. Further, given the NRC's statutory mandate, the robust process for stakeholder involvement in the decommissioning process already provided for in the agency's rules, and the fact that the agency's current guidance already provides best practices for creation of site-specific community advisory boards,<sup>61</sup> the changes proposed in Option 2 would not improve the efficiency of the decommissioning process or otherwise improve community engagement. Finally, industry's strong track record of community engagement at decommissioning sites does not indicate any need for additional guidance.

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<sup>59</sup> *Id.* at pgs. H-25-H-26.

<sup>60</sup> *Id.* at pg. H-26.

<sup>61</sup> *Id.* at pg. 25.

The industry continues to believe that community advisory boards can be an important aspect of the successful decommissioning of nuclear power facilities. But the formation and management of these boards is extremely site-specific, and should unfold organically, taking into account the unique dynamics of the relevant communities. Given that the proposed changes will not improve the safety or security of the decommissioning process, and would not result in additional efficiencies, we do not support the changes proposed under Option 2.

**Clarifying the Spent Fuel Management Requirements of 10 CFR 72.218, 10 CFR 50.54(bb), 10 CFR 50.82 and 10 CFR 52.110** The industry endorses Option 1 (No Action). The no-action option would retain the provisions of the current decommissioning regulations and guidance documents with regard to the NRC's expectations for spent fuel management and handling capabilities during decommissioning, and would make no changes or clarifications to the requirements in 10 CFR 50.82, 10 CFR 50.54(bb), 10 CFR 52.110, or 10 CFR 72.218. Appendix H reflects the NRC staff's desire to maintain safety, reduce regulatory uncertainty, and improve efficiency and effectiveness in the regulatory process for decommissioning nuclear power plants. Nonetheless, NRC staff recommends the use of Option 3 – Rulemaking to Clarify the Spent Fuel Management Requirements.<sup>62</sup>

The contemplated rulemaking would add a requirement "that the PSDAR contain a description of how the spent fuel stored under a general ISFSI license will be removed from the reactor site." In addition, 10 CFR 50.54(bb) would be amended "to establish that the program for managing spent fuel during decommissioning must take into consideration how the spent fuel will be managed before starting to decommission systems and components needed for moving, unloading, and shipping the spent fuel." Similar changes would be made to 10 CFR 72.218.

As the NRC acknowledges on pages H-32 and H-34, "there is no indication that the current licensee approaches to spent fuel management or the lack of cross referencing in the regulatory requirements for spent fuel management and handling capabilities diminish the amount of planning, preparation, and oversight expended by the licensee in undertaking decommissioning activities," and "there appear to be no additional public health or safety improvements to be gained by further regulatory changes in this area." Given that the proposed regulatory changes will not increase the public health and safety, or substantially improve efficiency, rulemaking on this issue is unnecessary. Therefore, the industry endorses Option 1 (No Action). The no-action option would retain the provisions of the current decommissioning regulations and guidance

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<sup>62</sup> *Id.* at pg. H-34.

documents with regard to the NRC's expectations for spent fuel management and handling capabilities during decommissioning, and would make no changes or clarifications to the requirements in 10 CFR 50.82, 10 CFR 50.54(bb), 10 CFR 52.110, or 10 CFR 72.218.

**Clarifying the Environmental Requirements in 10 CFR Part 50 and 10 CFR Part 51**

No comment at this time.

## **Appendix I - Application of Backfit Rule**

### **Overview**

In Appendix I of the draft RBD, the NRC states that "[t]he NRC's regulatory framework supports application of the Backfit Rule to power reactor licensees in decommissioning." The NRC presents three options for applying the Backfit Rule to decommissioning licensees:

1. No Action – apply the Backfit Rule to decommissioning licensees to the extent practical;
2. Guidance Development – update NRC guidance on the application of the Backfit Rule to decommissioning licensees; or
3. Conduct Rulemaking – add a new section to 10 CFR 50.109 to clarify that decommissioning licensees have the same backfitting protections they were afforded during plant operation.

The NRC recommends option 3, conducting a rulemaking that would amend 10 CFR 50.109 to clarify the applicability of backfitting requirements to decommissioning licensees by including a new section consisting of the provisions of the existing backfitting language relevant to a decommissioning licensee.

### **NEI Response**

NEI supports the NRC's recommended option 3 to conduct a rulemaking clearly stating that the backfit rule applies to decommissioning reactors. Specifically, NEI agrees that the NRC should add a new section to 10 CFR 50.109 that would consist of the provisions of the existing backfitting language relevant to decommissioning reactors. Specific rule language was proposed in NEI's response to the ANPR (attachment, p.69). The new section should leave the existing requirements of 10 CFR 50.109 unchanged, and should apply to all nuclear power facilities that have permanently ceased operation and defueled, regardless of when they ceased or will cease operation and regardless of the regulatory regime in place at the time of the transition from operation to defueled status.

For example, the new backfitting provision should apply to facilities that have docketed certifications of permanent cessation of operation and defueling pursuant to 10 CFR 50.82(a) or 10 CFR 52.110; facilities with licenses that were permanently modified to allow possession, but not operation of the facility before the effective date of 10 CFR

50.82(a); and facilities that have been issued a final legally effective order to permanently cease operations and such order has come into effect.

NEI agrees with the NRC that the other options considered (no action and guidance development) would not provide the predictability or stability necessary to ensure consistent and appropriate application of the backfit rule to decommissioning licensees. Any guidance necessary to implement the new section on backfitting should be developed in close coordination with the work being undertaken pursuant to the plan articulated in "Plan for Updating the U.S. Nuclear Regulatory Commission's Cost-Benefit Guidance," SECY-14-0002 (Jan. 2, 2014) and the Committee to Review Generic Requirements' response to the EDO's memorandum "Tasking Related to the Implementation of Agency Backfitting and Issue Finality Guidance" (June 9, 2016).

## **Appendix J - Aging Management**

### **Overview**

The NRC proposes two options to address aging management for decommissioning, and is soliciting feedback on these options. Specifically, the NRC proposes the following two options:

1. No action, or
2. Develop regulatory guidance and ensure the adequacy of inspections programs.

### **NEI Response**

NEI agrees with the NRC staff that “sufficient regulatory basis already exists to provide reasonable assurance that licensees adequately protect the nuclear fuel, and by extension the structures, systems, and components they rely upon to meet that obligation” and that no new regulations are necessary. NEI will develop guidance (Option 2) in order to ensure regulatory certainty during the transition to decommissioning. For neutron absorbing materials, the proper approach would be that the resolution to the issues raised in Generic Letter 2016-01, “Monitoring of Neutron Absorbing Materials in Spent Fuel Pools” (ADAMS Accession No. ML16097A169) be applied to all Part 50 licensees who store spent fuel in an onsite spent fuel pool. Once endorsed by the NRC, NEI 16-03, “Guidance for Monitoring of Fixed Neutron Absorbers in Spent Fuel Pools” (ADAMS Accession No. ML16147A078) would be an acceptable form of guidance that could be adopted by licensees that have permanently ceased operations.

For other passive, long-lived structures and components of concern (e.g., spent fuel pool liner, spent fuel pool cooling system), any guidance that is developed to provide recommended methods for demonstrating that the effects of aging will be managed must be consistent with the methods recommended in the Generic Aging Lessons Learned (GALL) Report aging management programs (AMPs). This would ensure continuity for licensees that have implemented AMPs as part of Part 50 license renewal and then entered decommissioning; the licensee could then choose to maintain the existing applicable AMPs in some form rather than be required to adopt an entirely new AMP that was created just for decommissioning. For licensees that enter decommissioning prior to the expiration of their initial 40-year operating license and, therefore, may not have implemented any AMPs, by keeping guidance consistent with the GALL AMPs, it would allow those licensees to utilize the operating experience (OE) that has been established during license renewal implementation. New AMPs developed

just for decommissioning that are not consistent with the GALL report would not have the OE base for licensees to draw from and utilize.

NEI notes that this appendix is solely focused on aging management for spent fuel pools (SFP) citing 3 different categories. The first category involves stand-alone ISFSI sites (page J-2) that no longer have fuel in the SFP and have also decommissioned the SFP. In order to avoid confusion, NEI recommends that this section specifically contain a statement that this appendix does not apply to dry cask storage systems whose aging management requirements are contained in the associated renewed Certificates of Compliance/site specific license or to sites that no longer have SFPs.

## **Appendix K - Fatigue Management**

### **Overview**

The NRC proposes three options to address fatigue management for decommissioning, and is soliciting feedback on these options. Specifically, the NRC proposes the following three options:

1. No action,
2. Voluntary industry initiatives to ensure consistency among licensees for fatigue management during decommissioning, or
3. Rulemaking to codify fatigue management during decommissioning.

### **NEI Response**

NEI recommends Option 2, voluntary industry initiatives. The Staff notes that no adverse safety impacts resulting from inconsistent fatigue management at decommissioning plants have been identified. Option 2 discusses that guidance would reduce uncertainty as to what elements a fatigue management program during decommissioning should contain.

NEI 15-08 Draft Revision 0 proposed guidance for managing fatigue for security personnel at decommissioning facilities. This guidance could also be applied to functions significant to the protection of public health and safety, i.e., Certified Fuel Handlers (CFHs), who have responsibility to supervise and direct the storage and handling of spent nuclear fuel.

Due to the significant reduction in radiological risk and consequences of an accident or security event at a decommissioning facility, limiting fatigue management requirements to security personnel and CFHs during the initial phase of the transition to decommissioning through an appropriate voluntary initiative is preferred to rulemaking (Option 3), which would not provide significant safety and security benefit, while it would impose substantial costs. The policy inconsistency noted between 10 CFR Part 52 combined license holders and 10 CFR Part 50 licensees only affects a small number of 10 CFR Part 52 licensees that will likely not enter decommissioning for a long time, so this particular issue can be addressed in the future as necessary.

The Staff's proposal to apply 10 CFR Part 26 fatigue requirements to CFHs and security personnel, as referenced by 10 CFR 26.4(a)(1) and (5) respectively, until such time that the fuel in the spent fuel pool has decayed so that 10 hours is available to initiate mitigation measures in the event of a postulated, beyond-design-basis zirconium fire

scenario (i.e., 10 months for BWRs and 16 months for PWRs), will be incorporated into NEI 15-08. In conjunction with this revision, NEI is requesting NRC review and endorsement of the revised NEI 15-08. Due to the relatively short period these controls would be in effect, it is unlikely that a significant number of deviations would occur, such as might need to be addressed by additional annual limitations or alternate group work-hour control provisions. Therefore, additional analysis of the proposed guidelines should not be warranted.

In considering COMSECY-04-0037 (June 21, 2004), the Commissioners stated that no evidence of a significant problem with fatigue of security forces at these facilities had been observed, the proposed action was not warranted, and if a potential concern exists it should be addressed through rulemaking as an appropriate way to allow for interactions with stakeholders and allow the Commission to make a better informed decision. In the interim since COMSECY-04-0037 was considered, the Staff has not identified significant safety or security impacts resulting from inconsistent implementation of fatigue management at decommissioning facilities.

On this basis, draft NEI 15-08 should continue to be considered for providing consistent guidelines for fatigue management of security personnel, and may be expanded to include applicability to CFHs, for the period immediately following shutdown until the nuclear fuel in the spent fuel pool has sufficiently decayed, as discussed above. The fatigue management provisions in 10 CFR 26 Subpart I would continue to not apply to decommissioning power reactors.

The comments in this response to Appendix K of the draft RBD are also applicable to the corresponding Section 4.6 of the preliminary draft regulatory analysis document. NEI supports Alternative F-2 (Voluntary industry initiatives to account for fatigue at decommissioning power reactors).

# **ATTACHMENT 3**

## **NEI Initial Response to NRC's Preliminary Draft Regulatory Analysis for Regulatory Basis: Regulatory Improvements for Decommissioning**

NRC made the preliminary draft regulatory analysis available for public comment on May 9, 2017. Given the limited availability of the draft preliminary regulatory analysis during the comment period (just over 30 days), we are providing high-level, summary comments as well as comments on specific aspects of the regulatory analysis document, where relevant.

### **Summary Comments**

#### *Purpose of the Rulemaking:*

Page 4 of the draft regulatory analysis states that the objectives of the decommissioning rulemaking include broad outcomes such as “[e]nsur[ing] that the requirements for decommissioning power reactors are clear and appropriate,” and “[i]dentify[ing], defin[ing], and resolv[ing] additional areas of concern related to the regulation of decommissioning power reactors.” While these broad objectives are not inherently flawed, we strongly agree with the NRC’s caution in the November 2015 ANPR that “[t]he proposed decommissioning rulemaking effort needs to be carefully scoped to ensure an efficient and timely rulemaking process. Incorporating too broad of a regulatory scope into a single rule was one of the challenges encountered during the prior rulemaking effort.” Given the need for an appropriately-scoped rulemaking, the objectives articulated in the regulatory analysis should track with the NRC’s description of the purpose of the rulemaking provided in the ANPR, which read: “The NRC’s goals in amending these regulations would be to provide an efficient decommissioning process, reduce the need for exemptions from existing regulations, and support the principles of good regulation, including openness, clarity, and reliability.”

#### *Section 3 "Identification and Analysis of Alternatives for Regulatory Approaches to Decommissioning:"*

Our detailed comments on the changes proposed in Appendix H of the draft RBD are provided in Attachment 2. In sum, we do not believe that any of the changes to the agency’s guidance proposed in Appendix H are appropriate, nor has the NRC offered an adequate justification for such changes. Likewise, the preliminary draft regulatory analysis includes conclusory, qualitative statements regarding the benefits of changes to the agency’s guidance regarding information to be contained in a PSDAR; the 60-year decommissioning timeframe; and the role of state and local governments, and non-governmental organizations. As explained in our comments on Appendix H, the NRC has not described precisely how the proposed changes to the guidance governing the information to be provided by licensees in these areas will improve the NRC’s regulatory decision-making or enhance its oversight of the decommissioning process. Further, none of the costs associated with the changes to agency guidance are quantified in Section 3, despite the fact that such costs are quantified for other options

involving development of additional guidance or rulemaking. Costs and benefits should be quantified to the extent possible.

*Section 6 "Presentation of Results for Areas of Decommissioning Considered for Rulemaking:"*

Given the limited availability of the preliminary draft regulatory analysis during the comment period, NEI has not analyzed the specific values associated with the implementation costs and benefits, and takes no position on the accuracy of the specific figures. That said, we generally agree with the quantitative conclusions regarding whether specific areas will yield net costs or net benefits (i.e., the sign of the results of the quantitative analyses). Also, it is unclear whether the NRC's evaluation of avoided industry costs considered avoidance of costs associated with maintaining the "full compliance baseline," in addition to avoidance of costs associated with obtaining exemptions and license amendments. For example, in addressing avoided costs associated with physical security Section 6.10.2 states "[t]he cost drivers that have the greatest influence are the number of NRC full-time equivalents (FTEs) to implement rulemaking . . . and the nuclear power industry labor rate for hours averted to process amendments." Avoidance of costs associated with issuing and obtaining exemptions and license amendments is a valid consideration, however it seems that the NRC should also consider the avoided industry costs of not having to maintain the "full compliance baseline" in areas such as physical security and emergency preparedness (i.e., avoided costs associated with reduced staffing required under the proposed rulemaking).

## **Specific Comments**

### **Section 4.3 Physical Security**

Section 4.3 summarizes NRC proposed rulemaking implementing appropriate changes to the physical security requirements that would apply to decommissioning power reactors. These changes would streamline the decommissioning process by providing in the regulations for those changes to security requirements that reflect the decreased risk presented by a power reactor in decommissioning status. These include changes commonly requested by decommissioning licensees and typically approved by the NRC. NEI agrees with the proposal for rulemaking, with comments.

NEI agrees with the NRC proposals to:

- Revise regulations to add certified fuel handler as a person authorized to approve suspension of security measures. NEI further recommends that senior on-shift personnel also be added as having authority to approve the suspension of security measures, consistent with Staff recommended changes described below in the continuous communications area.

- Relieve licensees of reactors in decommissioning from the requirement that the physical protection program be designed to protect against significant core damage. NEI has identified additional conforming changes that should be made to the regulations in this area.
- No longer require the security order for operational training for loss of the ultimate heat sink and that the corresponding Order section should be rescinded.
- No longer require licensees of reactors in decommissioning to protect the reactor control room as a vital area once the 10 CFR 50.82(a) or 10 CFR 52.110(a) certifications are submitted.
- Maintain the requirement for continuous communications between the alarm stations and the control room can be modified to include certified fuel handler or senior on-shift personnel.
- Transition licensees to the physical security requirements applicable to an ISFSI under 10 CFR 73.51 and 10 CFR 72 Subpart H once all nuclear fuel is placed into dry storage.

NEI disagrees with NRC proposals to:

- Notify licensees of reactors in decommissioning by letter of the suspension of NRC-conducted force-on-force inspections. This should instead be codified in the regulations during the decommissioning rulemaking.
- Leave unchanged the process for licensees to reassess the minimum number of armed responders needed to implement the site protective strategy. This process requires use of the 10 CFR 50.90 license amendment request regulation which includes NRC approval of a proposed change prior to implementation. Instead, the regulation should be changed to allow licensees to perform reassessments under the 10 CFR 50.54(p), which may allow licensees to make changes without prior NRC approval, and notes that 10 CFR 50.54(p) includes a requirement that 10 CFR 50.90 be followed should the licensee's assessment conclude the proposed change would constitute a reduction in safeguards effectiveness.
- Add a definition of "decrease in safeguards effectiveness" because the definition uses the term "security function," but does not define that term in a

comprehensive way similar to the emergency preparedness regulations on which it is modeled.

In response to questions asked in the Federal Register Notice but not included in the Appendices of the draft RBD or Regulatory Analysis, NEI strongly supports changes to 10 CFR 37 to exclude large components, robust structures and intact systems of reactors in decommissioning from the physical protection requirements of this regulation.

#### **Section 4.8 Decommissioning Trust Fund**

Overall, the cost benefit analysis in the area of decommissioning trust funds is representative of the overall impact to the licensees and NRC. NEI believes that the results of this analysis support rulemaking in this area as proposed in the draft RBD, with some changes as described in Attachment 2, but does not support a change to require site specific estimates in lieu of the minimum formula amount. In this regard, page 61 of the regulatory analysis accurately states that imposing a requirement that licensees rely upon site-specific cost estimates during operation would result in a “decrease in regulatory efficiency because licensees would have to each develop and update site-specific decommissioning cost estimates, instead of using the generic NRC minimum formula amount.”<sup>63</sup> Further, as explained on page 115 of the regulatory analysis, imposing such a requirement “may require the makeup of \$100 million or more in decommissioning funding on an annual basis, which would have significant impact on facilities’ cash flow.”<sup>64</sup> Such a substantial impact is clearly unjustified, given the fact that imposing this requirement would not increase decommissioning funding assurance. Finally, as mentioned in Attachment 1, imposing such a requirement would constitute backfitting and, therefore, the staff must demonstrate that the requirement would yield a substantial increase in the public health and safety or common defense and security, and that the costs associated with the requirement are justified in light of that increased protection.<sup>65</sup>

Additionally, the assumption that all exemptions would no longer be needed may not be true in the area of decommissioning funding based on the proposed changes in the draft RBD. Specifically, an exemption would still be required for a licensee to use DTFs for site restoration costs. Exemptions could be reduced if the proposed changes were modified to include site restoration as an allowable expense. A detailed description of

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<sup>63</sup> “Preliminary Draft Regulatory Analysis for Regulatory Basis: Regulatory Improvements for Decommissioning,” May 2017, at pg. 61.

<sup>64</sup> *Id.* at 115.

<sup>65</sup> See 10 CFR 50.109(a)(3).

this is provided in the "Use of the Decommissioning Trust Fund" section of NEI's comments on the draft RBD.

#### **Section 4.9 Offsite and Onsite Financial Protection Requirements and Indemnity Agreements**

NEI agrees with the NRC's draft Regulatory Analysis that the proposed changes for offsite and onsite financial protection requirements would result in NRC and industry averted implementation costs associated with applying for and reviewing exemptions. NRC should also include as an industry averted cost, the savings that would result from not having to carry full financial protection amounts while awaiting NRC approval of exemptions.

NEI has not analyzed the specific values associated with the implementation costs and takes no position on those figures; however, we agree that the total averted costs outweigh any implementation costs.

#### **Section 4.10 Application of Backfitting Protection**

NEI agrees with the NRC's draft Regulatory Analysis that the proposed backfitting changes would result in a one-time cost to licensees due to the industry's participation in the review and update of backfitting guidance. NEI has not analyzed the specific values associated with the implementation costs and takes no position on those figures; however, given the importance of regulatory certainty and clarity of the backfitting rule, the recommended changes should be pursued.

