

May 16, 2022

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U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: American Nuclear Society (ANS) Comments on the Nuclear Regulatory Commission (NRC) Proposed Rule Regarding Regulatory Improvements for Production and Utilization Facilities Transitioning to Decommissioning
Docket Number: NRC-2015-0070

Dear Mr. Doyle:

On behalf of approximately 10,000 nuclear technology professionals that make up the American Nuclear Society (ANS), I am pleased to provide comments on the Nuclear Regulatory Commission's (NRC's) proposed changes to its decommissioning regulations as described in "Regulatory Improvements for Production and Utilization Facilities Transitioning to Decommissioning," docket NRC-2015-0070, dated February 2022. According to the NRC, the goals of these proposed changes are to maintain the safe, effective, and efficient decommissioning process while removing redundancies and reducing certain requirements for license amendments and exemptions in the existing regulations. These changes have been predicated by ongoing communications and operational experience at nuclear power plants that have previously been decommissioned or are currently in the process of decommissioning. Overall, ANS generally supports the proposed changes and the efforts that have been taken to help streamline the regulations while keeping safety as the top priority. With ANS members experienced in various roles relating to nuclear decommissioning projects, we bring perspective on several aspects of these projects and the regulations that govern them. We are providing comments in the applicable major provisions in the proposed rulemaking discussed below.

Emergency Preparedness

Under the proposed rule, emergency preparedness has been broken down into four levels of emergency planning standards. These levels coincide with the following decommissioning milestones: 1) the time of plant shutdown; 2) the time at which all fuel has been transferred to the spent fuel pool and the fuel assembly with the highest burnup is less than or equal to 72 gigawatt days per metric ton of heavy metal and has zirconium cladding; 3) the time at which all spent fuel is in dry cask storage; and 4) the time at which all spent fuel has been removed from the site. These regulations can be found under §50.54(q)(7).

Within the proposed §50.54(q), there are instances of possible redundancies/contradictions. For example, §50.54(q)(5) states that revisions to emergency plans will be submitted to the NRC “within 30 days after the change is put in effect.” §50.54(q)(8)(i) requires revisions to be submitted “at least 60 days prior to implementation.” Similarly, §50.54(q)(8)(iii) notes that certain changes to emergency action levels are not considered reductions in effectiveness, therefore not requiring submittal to NRC for approval. However, §50.200(c)(1)(ii)(B) requires NRC approval via a license amendment for changes to the emergency action level scheme, seemingly without exception. ANS recommends that NRC resolve these inconsistencies as part of the rulemaking.

Irradiated Fuel Management Plan

The proposed rule discusses requirements of the Irradiated Fuel Management Plan (IFMP) under §50.54(bb). While generally in agreement with the content required in the IFMP, it is unclear why §50.54(bb)(1) states that the submittal of the IFMP requires an amendment to the license, or more directly, what portion of the license would be amended due to the IFMP submittal. Similarly, §50.54(bb)(4) requires projected costs of managing irradiated fuel and sources of funding, and §50.54(bb)(5) requires any changes to the IFMP be submitted to the NRC as an application for license amendment. With the potential for several revisions to the IFMP based on projected cost updates, requiring license amendment approvals seems overly burdensome. ANS supports modifying §50.54(bb)(5) to remove the requirement for a license amendment for “any changes to cost and schedule.”

Certified Fuel Handler definition and elimination of the Shift Technical Advisor

The proposed rule has added an alternative to the definition of the Certified Fuel Handler that eliminates the need for NRC approval for fuel handler training programs, provided that the Certified Fuel Handler is properly qualified in accordance with a training program that meets the requirements under §50.120. ANS agrees with this proposed revision.

Decommissioning Funding Assurance

Section 2.2.2.4 of the proposed revision to Regulatory Guide 1.159 discusses the availability of 3% of the decommissioning funds for “decommissioning planning” while the plant is still operating. ANS suggests the guide include a definition of what can be considered “decommissioning planning” and this definition should include:

- The preparation of a Historical Site Assessment;
- Site Characterization Surveys and Sampling/Analysis and the preparation of a Site Characterization Report; and
- Preparation of the License Termination Plan.

Physical Security

The term “decrease the safeguards effectiveness” is presently used in 10 CFR 50.54(p). Staff proposes to clarify the definition of this term in this section. As currently written, the definition includes a requirement to evaluate changes as they relate to effects on a licensee’s capabilities as set forth in §73.55(b)(3)(i). However, §73.55(b)(3)(i) does not apply to licensees upon the

NRC docketing of the certifications required under 50.82(a)(1) or section 52.110(a), and when all spent fuel has been placed in dry cask storage at the facility. For example, the requirements of 73.55(b)(3)(i) to interdict and neutralize do not apply to a licensee with all spent fuel in dry cask storage. Rather, in this plant condition, licensees provide for physical protection of the spent fuel under sections 72.212(b)(9)(i) through (vi), or subpart H of Part 72 and section 73.51, which do not include requirements to interdict and neutralize. The new proposed definition of “decrease in safeguards effectiveness” does not take this into account.

Clarification also needs to be added to 10 CFR 72.186 for consistency with the proposed addition to 50.54(p). ANS recommends rewording the new definition of “decrease in safeguards effectiveness” to clarify that evaluation of changes need to be made against either §73.55(b)(3)(i) **OR** §72.212(b)(9)(i) through (vi) **OR** subpart H of Part 72 and §73.51.

Cyber Security

The “concern” for Cyber Security is analogous to the “concern” for Fitness for Duty (FFD), explained as follows. 73.55(b)(9)(ii) includes (B) FFD as described in Part 26, but Part 26 no longer applies at Level 1. As such, NRC was compelled to propose a clarification on what elements of FFD continue to apply for the Insider Mitigation Program (IMP) after Level 1. 73.55(b)(9)(ii) also includes (C) Cyber Security as described in 73.54, which the proposed rule would sunset at Level 2. It would therefore be logical and consistent to also clarify in 73.55(b)(9) what elements of Cyber Security would be needed at Level 2 and beyond. Both FFD/Part 26 and Cyber Security per 73.54 would no longer apply prior to the IMP.

ANS recommends the NRC should clarify that once Level 2 is reached; no elements of Cyber Security would be needed for the IMP. The reason 73.54(i) is cited in the markup is because it establishes the conditions to be met to sunset Cyber Security. 73.54(j) was not cited because there is no direct tie between the cyber security license condition and the IMP, and 73.54(i) is still the underlying regulation.

Drug and Alcohol Testing

ANS recommends that the NRC clarify that 10 CFR Part 26 does not apply to power reactor licensees that have submitted the §50.82(a)(1) certifications. We support aligning the requirements for Part 52 licensees and Part 50 licensees so that Part 26 does not apply to licensees for nuclear power reactors after submitting the §50.82(a)(1) or §52.110(a) certifications.

Rather than supporting elements of Part 26 for drug and alcohol testing, ANS recommends development of stand-alone industry guidance document specific to fitness for duty requirements for an insider mitigation program appropriate for decommissioning facilities. This would provide greater clarity than is practical through specific changes to the regulations, promote consistent implementation of the program, and avoid potential unintended impacts on previous commitments to NEI 03-12 in the physical security plans of licensees.

The industry guidance would include addressing behavioral observation and employee assistance aspects of the fitness for duty program, as required elements of an IMP for a decommissioning facility. This guidance document would be endorsed by the NRC as an acceptable method to comply with the proposed regulations.

Environmental Considerations

The NRC Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities was issued in 1988 (NUREG-0586, referred to hereafter as the 1988 Generic Environmental Impact Statement [GEIS]). This document was supplemented in 2002 to consider the technological advances in decommissioning, the experience gained by licensees, and changes made to NRC regulations since the 1988 GEIS. The information from the 1988 GEIS is still applicable to permanently shut down and currently operating commercial nuclear power reactors. The Supplement is used to evaluate environmental impacts during the decommissioning of nuclear power reactors as residual radioactivity at the site is reduced to levels that allow for termination of the NRC license. The NRC Staff is now considering an additional supplement to the GEIS as it has been 20 years since the last update. ANS agrees that another supplement is timely but this effort should not be tied to the proposed decommissioning rulemaking effort.

This rulemaking has been under development for many years, and changes to the rule are needed to provide for a predictable and transparent decommissioning framework. We urge the NRC to proceed with all due haste to complete the rulemaking process. If you have any questions related to these comments, please contact John Starkey at jstarkey@ans.com or 907-360-2446.

Sincerely,

Steven P. Nesbit

A handwritten signature in black ink, appearing to read "S. P. Nesbit", with a long horizontal line extending to the right.

President
American Nuclear Society