

**POLICY ISSUE**  
**(Information)**

February 23, 2017

SECY-17-0028

FOR: The Commissioners

FROM: Victor M. McCree  
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SUBJECT: STATUS OF POWER REACTOR DECOMMISSIONING RULEMAKING  
ACTIVITIES AND LICENSING REVIEW EFFICIENCIES

PURPOSE:

The purpose of this paper is to inform the Commission of the status of the power reactor decommissioning rulemaking, "Regulatory Improvements for Reactors Transitioning to Decommissioning" (RIN 3150-AJ59, NRC-2015-0070). The staff intends to make a preliminary version of the draft regulatory basis publicly available on or about March 8, 2017 (but no earlier than 10 days after the date of this paper), to facilitate discussions at the upcoming Regulatory Information Conference. The staff will then formally publish the draft regulatory basis for public comment through a *Federal Register* notice. This paper does not address any new commitments or resource implications.

BACKGROUND:

On November 19, 2015, the U.S. Nuclear Regulatory Commission (NRC) published an advance notice of proposed rulemaking (ANPR) in the *Federal Register* (80 FR 72358) to gather information for the power reactor decommissioning rulemaking. The ANPR requested public comment on specific questions regarding decommissioning as well as on more general issues regarding possible revisions to the NRC's requirements for operating power reactors transitioning to decommissioning.

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The NRC received 162 comment submissions in response to the ANPR. The staff received comments in every regulatory area covered in the notice. Most public feedback pertained to the level of public involvement in the decommissioning process, the 60-year limit for power reactor decommissioning, whether the NRC should approve the post-shutdown decommissioning activities report (PSDAR), emergency preparedness (EP) considerations, and the use of the decommissioning trust funds. The Nuclear Energy Institute recommended proceeding with a “limited scope rulemaking” on an expedited schedule to focus on efficiencies that reduce the need for exemptions and amendments (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16081A486). In contrast, several members of Congress opposed narrowing the scope of the rule and urged the NRC to “move forward with a comprehensive proposal” (ADAMS Accession No. ML16263A405). The staff considered the comments received on the ANPR in preparing the draft regulatory basis.

## DISCUSSION:

### Issuance and Summary of the Draft Regulatory Basis

The draft regulatory basis for the power reactor decommissioning rulemaking is now complete (ADAMS Accession No. ML15294A490). The staff intends to make a preliminary version of the draft regulatory basis publicly available on or about March 8, 2017 (but no earlier than 10 days after the date of this paper), to facilitate discussions at the upcoming Regulatory Information Conference. To collect a wide range of views that will support a fully informed decision on the proposed rule, the staff intends to publish the draft regulatory basis for a 90-day public comment period, beginning with the publication of a *Federal Register* notice in March 2017, instead of the typical 60-day public comment period. The draft regulatory basis referenced in the *Federal Register* notice will have a different accession number, but will have identical content other than removal of the “preliminary” markings. The staff also plans to conduct a public meeting during the comment period to discuss the draft regulatory basis.

In the draft regulatory basis, the staff concludes that it has sufficient justification to proceed with rulemaking in the areas of EP, physical security, decommissioning trust funds, offsite and onsite financial protection requirements and indemnity agreements, and application of the backfit rule. The staff included all of these areas in the ANPR and received stakeholder feedback. Further, the staff is recommending rulemaking to: (1) require that the PSDAR contain a description of how the spent fuel stored under a general independent spent fuel storage installation license will be removed from the reactor site in accordance with the regulatory requirements in Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.82, 10 CFR 50.54(bb), 10 CFR 52.110, and/or 10 CFR 72.218 and (2) amend 10 CFR 51.53 and 10 CFR 51.95 to clarify that the requirement for a license amendment before decommissioning activities may commence applies only to non-power reactors, as specified in 10 CFR 50.82(b), in accordance with the 1996 changes to the decommissioning regulations.

At this time, the staff has determined that additional stakeholder input is needed prior to finalizing recommendations related to cyber security, drug and alcohol testing, certified fuel handler training and minimum staffing requirements, aging management, and fatigue management. The NRC received comments in these areas from the ANPR and intends to seek specific public input on these topics as part of the public comment request on the entire draft regulatory basis.

In the draft regulatory basis, the staff concludes that regulatory activities other than rulemaking—such as guidance development—should be used to address concerns expressed

in comments on the ANPR regarding the appropriate role of State and local governments in the decommissioning process, the level of NRC review and approval of the PSDAR, and the 60-year limit for power reactor decommissioning.

In several regulatory areas, the staff has already identified options that may constitute backfitting. These areas include physical security, certified fuel handler minimum staffing and training requirements, current regulatory approach to decommissioning, aging management, and fatigue management. The staff will complete its analysis to show whether any of these areas would be necessary for adequate protection or constitute a cost-justified substantial increase in the protection of public health and safety or common defense and security. Additionally, to support the draft regulatory basis, the staff is preparing a preliminary draft regulatory analysis, which will be made available for public comment in the near term. The preliminary draft regulatory analysis will contain the staff's initial analysis of the costs and benefits associated with each regulatory option considered in the draft regulatory basis.

In addition to the areas addressed in the ANPR, the staff has included questions in the *Federal Register* regarding six additional areas that may be considered for inclusion in the power reactor decommissioning rulemaking:

- 1) the use of the exemption process as part of transfer of a license issued under 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," to another entity (foreign or domestic) to perform decommissioning activities;
- 2) consideration of a site-specific cost estimate in lieu of the NRC minimum decommissioning funding formula;
- 3) whether or not security regulations in 10 CFR Part 37, "Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material," are necessary for facilities undergoing decommissioning given requirements in 10 CFR Part 73, "Physical Protection of Plants and Materials";
- 4) consideration of an adjustment to the amount of primary liability insurance that power reactor licensees in decommissioning must maintain;
- 5) whether or not the NRC should pursue regulatory alternatives to the current security plan change process in 10 CFR 50.54(p), given the high number of security plan changes that occur during decommissioning; and
- 6) whether or not a potential safety basis exists for recommending a rulemaking to require licensees to establish community advisory boards to obtain and address external stakeholder feedback regarding decommissioning licensing activities, and if such a basis exists, whether or not this rule change would result in a cost-justified, substantial increase in public health and safety or common defense and security.

Public comments on the draft regulatory basis will be considered in the development of the final regulatory basis. The staff will inform the Commission of the completion of the final regulatory basis in October 2017. The final regulatory basis will be used to inform the proposed rule that will be provided for Commission consideration in May 2018.

### Evaluation of Options to Expedite Power Reactor Decommissioning Rulemaking

Based on stakeholder feedback, the staff has explored options to expedite the power reactor decommissioning rulemaking.

The staff considered bifurcating the rule—i.e., including the topics currently addressed via exemption in the “limited scope rulemaking” recommended by the Nuclear Energy Institute with additional topics in a subsequent rulemaking. Some stakeholders would be concerned with this approach as issues of concern to them would not be addressed until the later rulemaking. As the EP provisions that would be included in the earlier portion of the rule are complex and expected to have high stakeholder interest, bifurcating in this manner would also not result in significant time savings. In addition, bifurcation would require duplication of effort across multiple rulemakings. If the schedule for portions of the rule were expedited, the staff would have fewer opportunities to hold public meetings with stakeholders to discuss the development of the proposed expedited rule and would have less time available to address public comments as required by the Administrative Procedure Act.

In addition, the staff considered forming a “tiger team” of NRC staff dedicated full-time to the power reactor decommissioning rulemaking effort. If this approach were taken, however, there could be a negative effect on the staff’s ability to conduct decommissioning licensing reviews in a timely manner. In some cases, the same technical reviewers are developing the power reactor decommissioning rulemaking and conducting licensing activities. This negative impact would be exacerbated if additional plants were to begin decommissioning before the final rule is issued.

Also, there is not a compelling safety argument to expedite the power reactor decommissioning rulemaking, as licensees have consistently demonstrated their ability to safely decommission nuclear facilities within the existing regulatory framework. The power reactor decommissioning rulemaking is better characterized as an efficiency rulemaking that will establish a predictable and transparent decommissioning process.

Overall, the staff concluded that these options would provide minimal benefits and potentially significant negative effects. Further, it is unlikely that a faster issuance of the rule would benefit any licensees that intend to decommission in the near term. Therefore, the staff will continue with the original plan in both rulemaking scope and schedule, and plans to provide a draft proposed rule to the Commission in May 2018.

### Efficiencies in Decommissioning Licensing Reviews

The staff continues to realize efficiencies gained in conducting the licensing reviews of nuclear power plants undergoing decommissioning. The staff issued a decommissioning lessons-learned report as a publicly available document (ADAMS Accession No. ML16176A339) on November 7, 2016. This report highlights the efficiency gains and best practices from the staff’s reviews of decommissioning-related licensing actions for the Kewaunee Power Station; Crystal River Unit 3 Nuclear Generating Plant; San Onofre Nuclear Generating Station, Units 2 and 3; and Vermont Yankee Nuclear Power Plant. Notable efficiency gains include: use of pre-application meetings between NRC staff and the licensee, licensee submittal of licensing actions prior to cessation of operations, staff development of a regulatory basis for the review and approval of the certified fuel handler training program, licensee and staff leveraging precedents, and the staff’s use of interim staff guidance for reviews of decommissioning reactor emergency preparedness and security exemption requests. In implementing these lessons

learned, the staff is conducting more efficient reviews, which have resulted in a reduction of the review time needed for the various decommissioning licensing activities.

The staff will continue to engage with Oyster Creek and Fort Calhoun to discuss planned licensing activities and will engage with the licensing staff for Palisades, Pilgrim, and Indian Point to understand the licensees' plans for transitioning to decommissioning. This information will support the staff's planning efforts and facilitate the completion of timely reviews of the decommissioning licensing activities.

#### Coordination with Emergency Preparedness for Small Modular Reactors and Other New Technologies Rulemaking

As stated in the rulemaking plan for the rulemaking on EP for Small Modular Reactors and Other New Technologies,<sup>1</sup> the staff plans to draw upon the power reactor decommissioning rulemaking to inform the development of the technical basis, rule language, and guidance documents for this additional rule. As such, the staff will continue to assess and coordinate these two rulemaking activities. Following its normal processes, the staff will communicate to the Commission regarding the regulatory basis that is currently being developed for the EP for Small Modular Reactors and Other New Technologies rulemaking.

#### Rulemaking Schedule Challenges

The staff notes that the current schedule for the power reactor decommissioning rulemaking is challenging. For a typical rulemaking, the timeframe from issuance of the draft regulatory basis to delivery of the proposed rule to the Commission is approximately 15 months. In addition, a typical rulemaking schedule includes 13 months from the issuance of the proposed rule to delivery of the final rule to the Commission. Because of the extended comment period for the ANPR (from 45 days to 120 days) and the additional time needed to respond to numerous complex comments, approximately 50 percent less time is available for development of the proposed rule and the final rule, as compared to a typical rulemaking schedule.

The staff intends to publish the draft regulatory basis for a 90-day public comment period and the proposed rule for the standard 75-day public comment period. The durations of these public comment periods were key planning assumptions provided by the staff as part of SECY-15-0014, "Anticipated Schedule and Estimated Resources for a Power Reactor Decommissioning Rulemaking," dated January 30, 2015 (ADAMS Accession No. ML15082A089).

The staff is exploring strategies to mitigate these schedule challenges. These strategies include implementing efficiencies throughout the rulemaking effort and following normal processes to explore additional resources, including contract support. Further, the staff will continue to regularly communicate the status of the rulemaking to NRC senior management and the Commission, when appropriate, including significant technical or scheduling challenges that may arise in order to facilitate prompt resolution.

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<sup>1</sup> The Commission approved the staff's rulemaking plan in the SRM dated June 22, 2016 (ADAMS Accession No. ML16174A166), associated with SECY-16-0069, "Rulemaking Plan on Emergency Preparedness for Small Modular Reactors and Other New Technologies," dated May 31, 2016 (ADAMS Accession No. ML16020A388).

CONCLUSION:

As noted above, the staff intends to make a preliminary version of the draft regulatory basis publicly available on or about March 8, 2017 (but no earlier than 10 days after the date of this paper), to facilitate discussions at the upcoming Regulatory Information Conference. The staff will then publish the draft regulatory basis for a 90-day public comment period, beginning with the publication of a *Federal Register* notice in March 2017. The staff will continue to follow its current plan, which includes providing the draft proposed rule for Commission review in May 2018 with the goal of providing a final rule for Commission review in October 2019.

The staff will keep the Commission informed of any issues that could result in additional delays to the decommissioning rulemaking schedule.

COORDINATION:

The Office of the General Counsel has reviewed this paper and has no legal objections.

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ACTIVITIES AND LICENSING REVIEW EFFICIENCIES, DATED FEBRUARY 23, 2017.

**ADAMS Accession Number: ML16307A215 WITS: SRM-S14-0118-2 \* via email**

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