

**NUCLEAR REGULATORY COMMISSION**

**10 CFR Parts 26, 50, 52, 73, and 140**

**[NRC-2015-0070]**

**RIN 3150-AJ59**

**Regulatory Improvements for Power Reactors Transitioning to Decommissioning**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Draft regulatory basis; request for comment.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is requesting comments on a draft regulatory basis to support a rulemaking that would amend NRC's regulations for the decommissioning of nuclear power reactors. The NRC's goals in amending these regulations would be to provide for an efficient decommissioning process; reduce the need for exemptions from existing regulations; address other decommissioning issues deemed relevant by the NRC staff; and support the principles of good regulation, including openness, clarity, and reliability. The NRC plans to hold a public meeting to discuss the draft regulatory basis and facilitate public comment.

**DATES:** Submit comments by **[INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. Comments received after this date will be considered if it is practical to do so, but the NRC is only able to ensure consideration of comments received on or before this date.

**ADDRESSES:** You may submit comments by the following method:

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID NRC-2015-0070. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: [Carol.Gallagher@nrc.gov](mailto:Carol.Gallagher@nrc.gov). For technical questions contact the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document.

For additional direction on obtaining information and submitting comments, see “Obtaining Information and Submitting Comments” in the SUPPLEMENTARY INFORMATION section of this document.

**FOR FURTHER INFORMATION CONTACT:** Alysia G. Bone, telephone: 301-415-1034, e-mail: [Alysia.Bone@nrc.gov](mailto:Alysia.Bone@nrc.gov); or Jennifer C. Tobin, telephone: 301-415-2328, e-mail: [Jennifer.Tobin@nrc.gov](mailto:Jennifer.Tobin@nrc.gov). Both are staff of the Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

**SUPPLEMENTARY INFORMATION:**

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## I. Obtaining Information and Submitting Comments

### A. Obtaining Information

Please refer to Docket ID NRC-2015-0070 when contacting the NRC about the availability of information for this action. You may obtain publicly-available information related to this action by any of the following methods:

- **Federal Rulemaking Web site:** Go to <http://www.regulations.gov> and search for Docket ID NRC-2015-0070.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly-available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "ADAMS Public Documents" and then select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). The draft regulatory basis document is available in ADAMS under Accession No. ML17047A413.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

### B. Submitting Comments

Please include Docket ID NRC-2015-0070 in your comment submission. If you cannot submit your comments on the Federal rulemaking Web site, [www.regulations.gov](http://www.regulations.gov), then contact one of the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment

submissions at <http://www.regulations.gov> as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons to not include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS. Please note that the NRC will not provide formal written responses to each of the comments received on the draft regulatory basis. However, the NRC staff will consider all comments received in the development of the final regulatory basis.

## **II. Discussion**

On December 30, 2014, in the staff requirements memorandum (SRM) for SECY-14-0118, "Request by Duke Energy Florida, Inc., for Exemptions from Certain Emergency Planning Requirements" (ADAMS Accession No. ML14364A111), the Commission directed the NRC staff to proceed with a rulemaking on power reactor decommissioning. The Commission also stated that the rulemaking should address: issues discussed in SECY-00-0145, "Integrated Rulemaking Plan for Nuclear Power Plant Decommissioning" (ADAMS Accession No. ML003721626), such as the graded approach to emergency preparedness (EP); lessons learned from the plants that have already (or are currently) going through the decommissioning process; the advisability of requiring a licensee's Post-Shutdown Decommissioning Activities Report (PSDAR) to be approved by the NRC; the appropriateness of maintaining the three existing options for decommissioning and the timeframes associated with those options; the appropriate role of state and local governments and non-governmental

stakeholders in the decommissioning process; and any other issues deemed relevant by the NRC.

The NRC issued an advance notice of proposed rulemaking (ANPR) in the *Federal Register* (80 FR 72358; November 19, 2015) to obtain stakeholder feedback on the regulatory issues included in the SRM for SECY-14-0118. The NRC received public comments related to each of the regulatory issues outlined in the ANPR. 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 PSDAR, EP considerations, and the use of the decommissioning trust funds (DTFs). The NRC reviewed the comments and used input received from the comments to develop the options presented in the draft regulatory basis.

In the draft regulatory basis, the NRC staff concludes that it has sufficient justification to proceed with rulemaking in the areas of EP, physical security, DTFs, offsite and onsite financial protection requirements and indemnity agreements, and application of the backfit rule. As stated previously, the NRC staff included all of these areas in the ANPR and received stakeholder feedback. Further, the NRC 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 § 50.82 of title 10 of the *Code of Federal Regulations* (10 CFR), “Termination of License,” 10 CFR 50.54(bb), “Conditions of Licenses,” 10 CFR 52.110, “Termination of License,” and/or 10 CFR 72.218, “Termination of Licenses;” and (2) amend 10 CFR 51.53, “Postconstruction Environmental Reports,” and 10 CFR 51.95, “Postconstruction Environmental Impact Statements,” to clarify that the requirements for a license amendment before decommissioning activities may commence applies only to non-power reactors, as specified in 10 CFR 50.82(b), “Termination of License,” in accordance with the 1996 final rule that amended the NRC’s decommissioning regulations (61 FR 39278).

At this time, the NRC 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, 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 NRC staff concludes that regulatory activities other than rulemaking—such as guidance development—should be used to address concerns expressed in comments received 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. The NRC is requesting public comment on the draft regulatory basis and its associated appendices. To supplement the draft regulatory basis, the NRC is preparing a preliminary draft regulatory analysis, which will be made available for public comment in the near future.

### **III. Request for Comment**

The NRC is requesting comment on the draft regulatory basis, “Regulatory Improvements for Reactors Transitioning to Decommissioning.” As you prepare your comments, consider the following general questions:

1. Is the NRC considering appropriate options for each regulatory area described in the draft regulatory basis?

2. Are there additional factors that the NRC should consider in each regulatory area?  
What are these factors?

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

4. Is there additional information concerning regulatory impacts that NRC should include in its regulatory basis for this rulemaking?

#### *Specific Regulatory Issues*

In addition to these general questions, the NRC has identified additional areas of consideration that either could be included in the scope of the power reactor decommissioning rulemaking or addressed through other actions. The NRC may include additional discussion of these issues in the final regulatory basis, and if included, will use any public comments received regarding these issues to inform the development of the final regulatory basis. The NRC requests that members of the public answer the following specific questions regarding these additional regulatory issues.

#### *Foreign Ownership, Control, or Domination (FOCD) Exemptions for Facilities in Decommissioning*

A licensee in decommissioning may desire to transfer their license under 10 CFR part 50, "Domestic Licensing of Production and Utilization Facilities," to another entity to perform the decommissioning activities described in the licensee's PSDAR. However, pursuant to § 50.38, "Ineligibility of Certain Applicants," the receiving entity is ineligible to obtain the license if it is a citizen, national, or agent of a foreign country or if it is 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. The NRC has granted exemptions from this requirement for facilities that have been dismantled and removed, such that only independent spent fuel storage installations remained onsite (78 FR 58571; September 24, 2013).

5. Should the NRC address the exemption to § 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?

*Potential Changes to 10 CFR Part 37*

Both operating and decommissioning power reactor licensees are subject to the physical protection programs contained in § 73.55, “Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage,” of 10 CFR part 73, “Physical Protection of Plants and Materials;” appendix B, “General Criteria for Security Personnel,” to 10 CFR part 73; and appendix C, “Licensee Safeguards Contingency Plans,” to 10 CFR part 73. These licensees are also subject to 10 CFR part 37, “Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material,” if they possess category 1 and category 2 quantities of radioactive material. Therefore, these licensees are potentially subject to both 10 CFR part 73 and 10 CFR part 37 security regulations.

The NRC issued the regulations in 10 CFR part 37 to establish security requirements for the use and transport of risk significant quantities of category 1 and category 2 radioactive material. Category 1 and category 2 thresholds of radioactive materials in 10 CFR part 37 are consistent with similar categories of radioactive materials established by the International Atomic Energy Agency in its Code of Conduct on the Safety and Security of Radioactive Sources (available at <http://www-ns.iaea.org/tech-areas/radiation-safety/code-of-conduct.asp> (last visited on February 10, 2017)).

The objective of 10 CFR part 37 is to provide reasonable assurance that licensees can prevent the theft or diversion of category 1 and category 2 quantities of radioactive material. The current 10 CFR part 37 regulation is applicable to any licensee that possesses an aggregated category 1 or category 2 quantity of radioactive material, any licensee that

transports these materials using ground transportation, and any licensee that transports small quantities of irradiated reactor fuel.

To address the potential impact of redundant security regulations during decommissioning, the NRC is considering revising security regulations, including addressing the physical security requirements for category 1 and category 2 materials at facilities undergoing decommissioning.

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?

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)?

8. Should the NRC establish specific 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)?

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?

*Specific Questions Regarding Appendix F, "Decommissioning Trust Funds," of the Draft Regulatory Basis*

In addition to the options proposed in Appendix F of the draft regulatory basis, the NRC is considering an option to amend the regulations in § 50.75, "Reporting and Recordkeeping for Decommissioning Planning," to require each power reactor licensee to provide and assure to a site-specific cost estimate that is reviewed by the NRC at initial licensing, throughout operations,

and while in decommissioning. A future licensee would provide at licensing site-specific decommissioning plans, including an initial site-specific cost estimate that captures the major assumptions, major decommissioning activities, references, and any other bases used to develop this estimate. Each plan would address how the cost estimate will be adjusted for future cost escalation, the mechanism to be established for funding, and a schedule for periodic contributions and assumptions about future decommissioning trust fund growth (e.g., 2 percent real-rate of return). During operations, each licensee would update the initial site-specific cost estimate periodically to account for cost escalation and any changes in assumptions that may result in increased decommissioning costs (i.e., years 1-35 at 5 year intervals; annually thereafter). Should this option be considered, the NRC would recommend the following:

a. The Table of Minimum Amounts in § 50.75(b) would continue to require certification of a site-specific decommissioning cost estimate that meets, or exceeds, the NRC minimum formula amount.

b. Implementation Period: The NRC would recommend that current licensees be provided the biennial (2 year) status report period with an additional year to provide and assure to the site-specific decommissioning plan referenced herein.

10. Should this area of the regulations be addressed in this rulemaking? If so, why, and how should the NRC address this issue?

#### *Onsite and Offsite Liability Insurance during Decommissioning*

The NRC staff is considering a proposal to adjust the amounts of primary liability insurance that power reactor licensees in decommissioning must maintain. The current practice is to exempt these licensees from the § 140.11 requirements (for offsite insurance) and § 50.54(w) (for onsite insurance) so that the amount of offsite and onsite insurance corresponds to the risks of a decommissioning plant. The NRC staff would use this rulemaking to establish regulations for licensees in decommissioning to preclude the need for these licensees to

request exemptions. The NRC staff is considering using the amounts approved in several previous exemption actions and adjusting those amounts for inflation.

11. If the NRC takes this approach, 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?

*Specific Question Regarding Security Plan Changes during Decommissioning*

Operating reactor licensees that are decommissioning may use the § 50.54(p)(2) process to implement changes to their site security plans (e.g., removal of barriers, reduction of vital areas and armed response team members) that do not decrease the safeguards effectiveness of their plans. After the licensee has implemented the changes to their security plans and submitted the required report of the changes, the NRC staff practice is to review these reports to ensure that the licensee has properly adhered to the requirements of § 50.54(p)(2) and not implemented a change that decreases the safeguards effectiveness of its security plans. Although not specifically required by regulation, licensees have typically included in their submitted reports information demonstrating that these changes do not constitute a decrease in safeguards effectiveness. However, submission of this additional information currently is not a regulatory requirement.

The NRC staff further notes that the change process in § 50.54(p)(2) is complicated for both licensees and the NRC staff by the fact that the term “decrease in safeguards effectiveness” is not defined in our regulations. Accordingly, the NRC is considering adding the following definition to § 50.2, “Definitions,” or to § 50.54(p)(2): *A decrease in the safeguards effectiveness* of a security plan is a change or series of changes to the security plan that reduces or eliminates the licensee’s ability to perform or maintain the security function that was previously performed or provided by the changed element or component without compensating changes to other security plan elements or components.

12. The NRC staff requests public comments on the following options.

Option 1, no change. Decommissioning licensees continue to implement security plan changes that do not decrease safeguards effectiveness using the provisions of § 50.54(p)(2), reporting changes to the NRC within 2 months. If the NRC staff is unable to verify the licensee's safeguards effectiveness determination through a review of the submitted report, the NRC staff would continue to follow up on the changes through the inspection process.

Option 2, develop regulatory guidance associated with decommissioning reactor security plan changes to provide licensees guidance for making security plan changes that do and do not decrease the safeguards effectiveness of the plan.

Option 3, revise the requirements in § 50.54(p) to include the aforementioned definition of safeguards effectiveness and revise the specific requirements in § 50.54(p)(2) to more closely reflect the wording found in § 50.54(q), "Emergency Plans," specifically within paragraphs 50.54(q)(3) and (5).

13. Which option should the NRC pursue to address this issue?

*Specific Question Regarding the Community Advisory Board (CAB)*

Although not a regulatory requirement, to date all decommissioning licensees have created some form of a community advisory board, with membership and activity levels commensurate with the overall level of public interest in the decommissioning activities at the facility. Currently, the staff doesn't have a compelling safety basis to recommend an option for rulemaking regarding the licensee's establishment of a community advisory board.

14. The staff is seeking public comment on how such a requirement might constitute a cost-justified, substantial increase in protection of the public health and safety or the common defense and security.

#### **IV. Cumulative Effects of Regulation**

The cumulative effects of regulation (CER) describe the challenges that licensees or other impacted entities (such as State agency partners) may face while implementing new regulatory positions, programs, and requirements (e.g., rules, generic letters, backfits, inspections). The CER is an organizational effectiveness challenge that results from a licensee or impacted entity implementing a number of complex positions, programs, or requirements within a limited implementation period and with available resources (which may include limited available expertise to address a specific issue). The NRC has implemented CER enhancements to the rulemaking process to facilitate public involvement throughout the rulemaking process. Therefore, the NRC is specifically requesting comment on the cumulative effects that may result from this proposed rulemaking. In developing comments on the draft regulatory basis, consider the following questions:

1) In light of any current or projected CER challenges, what should be a reasonable effective date, compliance date, or submittal date(s) from the time the final rule is published to the actual implementation of any new proposed requirements, including changes to programs, procedures, or the facility?

2) If current or projected CER challenges exist, what should be done to address this situation (e.g., if more time is required to implement the new requirements, what period of time would be sufficient, and why such a time frame is necessary)?

3) Do other regulatory actions (e.g., orders, generic communications, license amendment requests, and inspection findings of a generic nature) by the NRC or other agencies influence the implementation of the potential proposed requirements?

4) Are there unintended consequences? Does the potential proposed action create conditions that would be contrary to the potential proposed action's purpose and objectives? If so, what are the consequences and how should they be addressed?

5) Please provide information on the costs and benefits of the potential proposed action. This information will be used to support additional regulatory analysis by the NRC.

## V. Availability of Documents

The NRC may post additional materials related to this rulemaking activity to the Federal rulemaking website at [www.regulations.gov](http://www.regulations.gov) under Docket ID NRC-2015-0070. These documents will inform the public of the current status of this activity and/or provide additional material for use at future public meetings.

The Federal rulemaking website allows you to receive alerts when changes or additions occur in a docket folder. To subscribe: 1) navigate to the docket folder (NRC-2015-0070); 2) click the "Sign up for E-mail Alerts" link; and 3) enter your e-mail address and select how frequently you would like to receive e-mails (daily, weekly, or monthly).

The documents identified in the following table are available to interested persons through one or more of the methods listed in the ADDRESSES section of this document.

<b>DOCUMENT</b>	<b>ADAMS ACCESSION NO. / WEB LINK / FEDERAL REGISTER CITATION</b>
SECY-14-0118, "Request by Duke Energy Florida, Inc., for Exemptions from Certain Emergency Planning Requirements," December 30, 2014.	ML14364A111
SECY-00-0145 – "Integrated Rulemaking Plan for Nuclear Power	ML003721626

Plant Decommissioning,” June 28, 2000.	
<i>Federal Register</i> notice, “Advance Notice of Proposed Rulemaking: Regulatory Improvements for Decommissioning Power Reactors,” November 19, 2015.	80 FR 72358
<i>Federal Register</i> notice, “Maine Yankee Atomic Power Company, Connecticut Yankee Atomic Power Company, and The Yankee Atomic Electric Company,” September 24, 2013.	78 FR 58571
Code of Conduct on the Safety and Security of Radioactive Sources, September 8, 2003.	<a href="http://www-ns.iaea.org/tech-areas/radiation-safety/code-of-conduct.asp">http://www-ns.iaea.org/tech-areas/radiation-safety/code-of-conduct.asp</a>

## VI. Plain Writing

The Plain Writing Act of 2010 (Pub. L. 111-274) requires Federal agencies to write documents in a clear, concise, well-organized manner. The NRC has written this document to be consistent with the Plain Writing Act as well as the Presidential Memorandum, “Plain Language in Government Writing,” published in the *Federal Register* on June 10, 1998 (63 FR 31883). The NRC requests comment on this document with respect to the clarity and effectiveness of the language used.

Dated at Rockville, Maryland, this 10<sup>th</sup> day of March, 2017.

For the Nuclear Regulatory Commission.

**/RA/**

Louise Lund, Director,  
Division of Policy and Rulemaking,  
Office of Nuclear Reactor Regulation.

**FRN: REGULATORY IMPROVEMENTS FOR DECOMMISSIONING POWER REACTORS  
 DATED: March 10, 2017**

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