

# Decommissioning Rulemaking

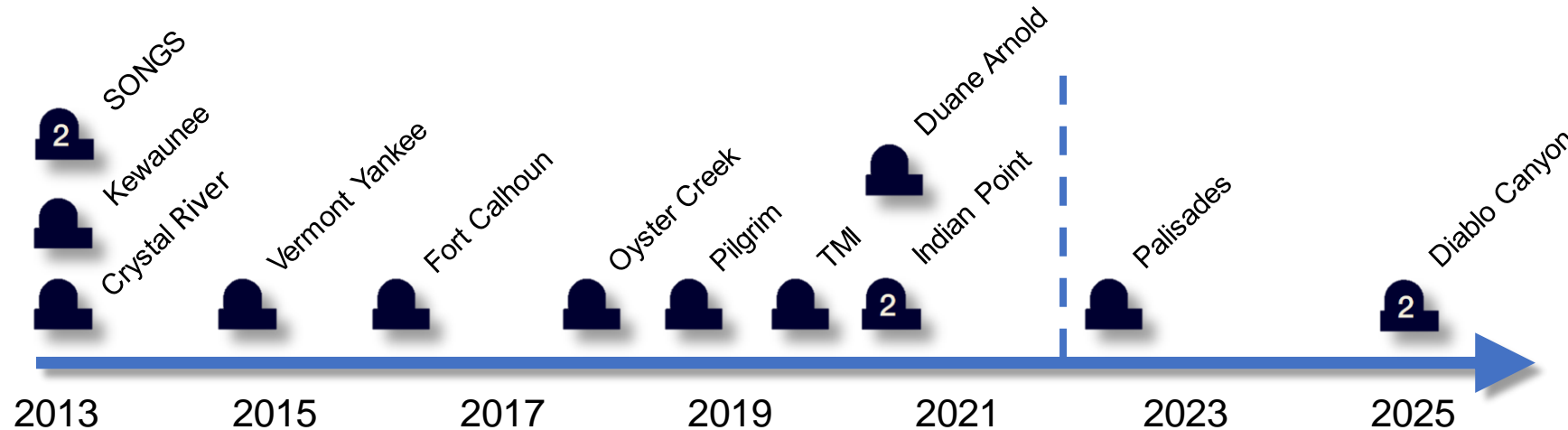
Presentation for the State Liaison Officer Conference

March 23, 2022

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# Recent and Planned Shutdowns

- Factors affecting licensees' decisions
  - Market factors resulting in a decline in power prices
  - Increasing plant modification, maintenance, and repair costs
- Requests for license amendments, regulatory exemptions, and relief from orders



# The NRC is seeking public comment on a proposed rule for decommissioning nuclear facilities

- The proposed rule would implement specific regulatory requirements for different phases of the decommissioning process consistent with the reduced radiological risk.

## Topics include:

- Emergency preparedness
- Decommissioning funding assurance
- Environmental considerations
- Spent fuel management planning
- Record retention requirements
- Proposed rule published March 3, 2022 ([87 FR 12254](https://www.federalregister.gov/doc/100000000/2022-03-03/2022-03-03))
- Four draft regulatory guides available for comment in parallel with the proposed rule
- Comment period is open until May 17, 2022

**12254** Federal Register / Vol. 87, No. 42 / Thursday, March 3, 2022 / Proposed Rule

**NUCLEAR REGULATORY COMMISSION**  
10 CFR Parts 20, 26, 50, 51, 52, 72, 73, 140  
[NRC-2015-0070]  
RIN 3150-AJ39

**Regulatory Improvements for Production and Utilization Facilities Transitioning to Decommissioning**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Proposed rule.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is proposing to amend its regulations that relate to the decommissioning of production and utilization facilities. The NRC's goals in amending these regulations are to maintain a safe, effective, and efficient decommissioning process; reduce the need for license amendment requests and exemptions from existing regulations; address other decommissioning issues deemed relevant by the NRC; and support the NRC's Principles of Good Regulation, including openness, clarity, and reliability. The NRC will hold a public meeting to promote full understanding of this proposed rule and to facilitate public comments.

**DATES:** Submit comments by May 17, 2022. Comments received after this date will be considered if it is practical to do so, but the Commission is able to ensure consideration only for comments received before this date.

**ADDRESSES:** You may submit comments by the following method (unless this document describes a different method for submitting comments):

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:** Daniel I. Doyle, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-3748; email: [Daniel.Doyle@nrc.gov](mailto:Daniel.Doyle@nrc.gov).

**SUPPLEMENTARY INFORMATION:**

**Executive Summary**

**A. Need for the Regulatory Action**

The NRC is proposing to amend its regulations related to the decommissioning of production and utilization facilities. The Commission directed the NRC staff to proceed with an integrated rulemaking on nuclear power reactor decommissioning to address the following: A graded approach to emergency preparedness (EP), lessons learned from the licensees that have already gone through (or are currently going through) the decommissioning process, the advisability of requiring a licensee's post-shutdown decommissioning activity 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 staff.

Compared to an operating nuclear power reactor, the risk of an offsite release of radioactive material is significantly lower. The NRC has also determined that changes to the regulations are appropriate with respect to drug and alcohol testing, cyber security, and foreign ownership, control, or domination of a production or utilization facility undergoing decommissioning.

In several areas, the current regulations do not distinguish between provisions that apply to a nuclear power reactor that has permanently ceased operations and provisions that apply to an operating nuclear power reactor. To address this, the NRC is proposing to amend its regulations in several areas to provide a regulatory framework for the transition from operating to decommissioning. This proposed rule is a four-step graded approach that is commensurate with the reduction in radiological risk at four levels of decommissioning: (1) Permanent cessation of operations and permanent removal of all fuel from the reactor vessel, (2) sufficient decay of fuel in the spent fuel pool (SFP) such that it would not reach ignition temperature within 10 hours under adiabatic heating conditions (i.e., a complete loss of SFP water inventory with no heat loss), (3) transfer of all fuel to dry storage, and (4) removal of all fuel from the site. The graded approach is a fundamental concept for this proposed rule.

Because the current regulatory framework for decommissioning is adequate to protect public health and safety and the common defense and security, many of the new requirements in this proposed rule are alternatives to current requirements.

**B. Major Provisions**

Major provisions of this proposed rule include changes in the following areas:

• The NRC is proposing to amend its regulations related to the decommissioning of production and utilization facilities. The Commission directed the NRC staff to proceed with an integrated rulemaking on nuclear power reactor decommissioning to address the following: A graded approach to emergency preparedness (EP), lessons learned from the licensees that have already gone through (or are currently going through) the decommissioning process, the advisability of requiring a licensee's post-shutdown decommissioning activity 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 staff.

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**Comments can be submitted at <https://www.regulations.gov/> by searching for Docket ID NRC-2015-0070**

# Graded Approach

	Docketing of 10 CFR 50.82/ 10 CFR 52.110 Certifications	Permanent Cessation of Operations + 10 Months (BWR) or 16 Months (PWR)	All Fuel in Dry Cask Storage	All Fuel Offsite
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
Emergency Preparedness	Post-Shutdown Emergency Plan (PSEP)	Permanently Defueled Emergency Plan (PDEP)	ISFSI Only Emergency Plan (IOEP)	Permanent or interim waste storage available
Physical Security	Allows for certain physical security plan changes without prior NRC approval		Can transition from 10 CFR 73.55 to 10 CFR 73.51 requirements	
Cyber Security		Removal of cyber security requirements		
Onsite/Offsite Insurance		Reduction of onsite insurance to \$50 million  Reduction of offsite insurance to \$100 million		

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# Proposed Rule and Related Documents

- **Proposed Rule**

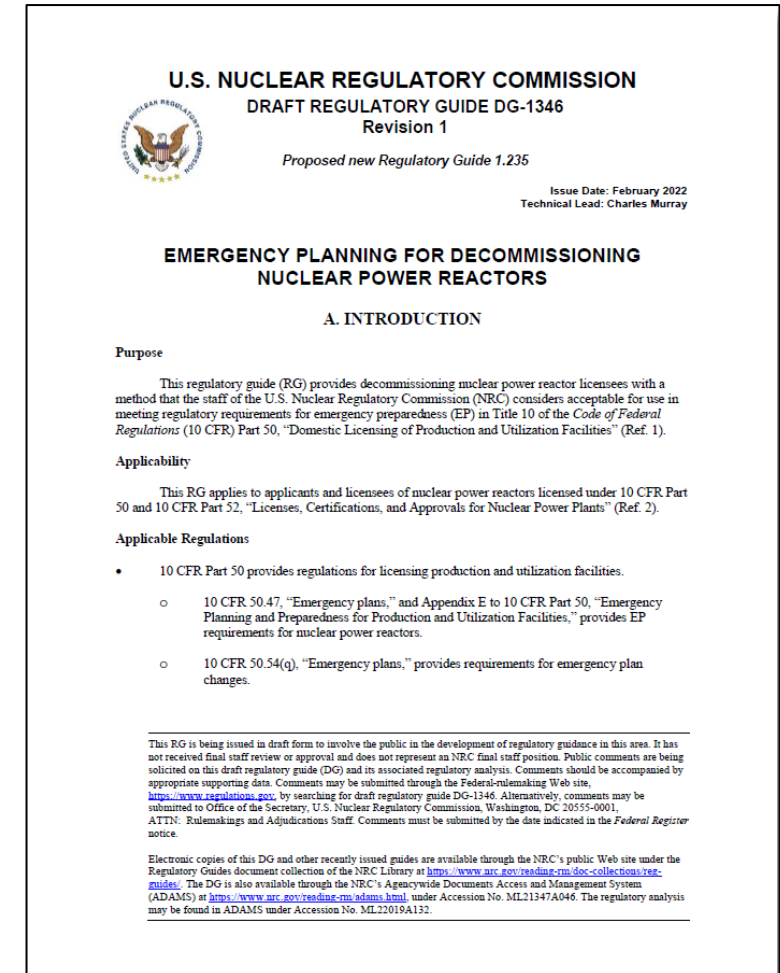
- Citation: 87 FR 12254 (March 3, 2022)
- [Web version](#)
- [Printed version](#)

- **Supporting & Related Material**

- Draft Regulatory Analysis ([ML22019A132](#))
- Draft Environmental Assessment ([ML22019A140](#))
- Draft Supporting Statements for Information Collections ([ML18039A192](#))
- Unofficial Redline Rule Text ([ML22032A001](#))

# Guidance Documents

- DG-1346 Rev. 1 (Proposed New RG 1.235) Emergency Planning for Decommissioning Nuclear Power Reactors ([ML21347A046](#))
- DG-1347 Rev. 1 (Proposed RG 1.184 Rev. 2) Decommissioning of Nuclear Power Reactors ([ML21347A080](#))
- DG-1348 Rev. 1 (Proposed RG 1.159 Rev. 3) Assuring the Availability of Funds for Decommissioning Production or Utilization Facilities ([ML21347A081](#))
- DG-1349 Rev. 1 (Proposed RG 1.185 Rev. 2) Standard Format and Content for Post-Shutdown Decommissioning Activities Report ([ML21347A138](#))



# Unofficial Redline Rule Language

- This document shows how the proposed rule would modify the current regulations in redline/strikeout format.
- ADAMS Accession No. [ML22032A001](#)

(b) Each power reactor applicant for or holder of an operating license, and each applicant for a combined license under subpart C of 10 CFR part 52 for a production or utilization facility of the type and power level specified in paragraph (c) of this section shall submit a decommissioning report, as required by § 50.33(k).

(1) For an applicant for or holder of an operating license under ~~this part 50~~, the report must contain a certification that ~~financial~~reasonable assurance ~~for decommissioning~~that funds will be ~~available to decommission~~ will be (for a license applicant), or has been (for a license holder), provided in an amount which may be more, but not less, than the amount stated in the table in paragraph (c)(1) of this section ~~adjusted using a rate at least equal to that stated in paragraph (c)(2) of this section~~. ~~For an applicant for a combined license under subpart C of 10 CFR part 52, the report must contain a certification that financial assurance for decommissioning will be provided no later than 30 days after the Commission publishes notice in the Federal Register under § 52.103(a) in an amount which may be more, but not less, than the amount stated in the table of minimum amounts in paragraph (c)(1) of this section, adjusted using a rate at least equal to that stated in paragraph (c)(2) of this section~~. ~~For an applicant for a combined license under subpart C of part 52 of this chapter, the report must contain a certification that reasonable assurance of funds to decommission will be provided no later than 30 days after the Commission publishes notice in the Federal Register under § 52.103(a) of this chapter in an amount which may be more, but not less, than the amount stated in the table of minimum amounts in paragraph (c)(1) of this section, adjusted using a rate at least equal to that stated in paragraph (c)(2) of this section~~.

(2) The amount to be provided must be adjusted annually using a rate at least equal to that stated in paragraph (c)(2) of this section.

(3) The amount must be covered by one or more of the methods described in paragraph (e) of this section ~~as acceptable to the NRC~~.

(4) The amount stated in the applicant's or licensee's certification may be based on a ~~site-specific decommissioning cost estimate for decommissioning the facility~~. ~~The site-specific decommissioning cost estimate may be more, but not less, than the amount stated in the table of minimum amounts in paragraph (c)(1) of this section, adjusted using a rate at least equal to that stated in paragraph (c)(2) of this section~~.

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# Find additional information on the NRC public website



<https://go.usa.gov/xzksC>

Questions?

Contact Dan Doyle, [Dan.Doyle@nrc.gov](mailto:Dan.Doyle@nrc.gov), 301-415-3748





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# Next Steps

- Public comment period ends: May 17, 2022
- Final rule to the Commission: October 2023 (estimated)
- Final rule publication: May 2024 (estimated)

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# Acronyms

ADAMS	Agencywide Documents Access and Management System
BWR	boiling water reactor
CFR	<i>Code of Federal Regulations</i>
DG	draft regulatory guide
IOEP	ISFSI-only emergency plan
ISFSI	independent spent fuel storage installation
NRC	Nuclear Regulatory Commission
PDEP	permanently defueled emergency plan
PSEP	post-shutdown emergency plan
PWR	pressurized water reactor
RG	regulatory guide