

2023 NRC EP Rulemaking Update

Milt Murray
Eric Schrader

Transition to Decommissioning Rulemaking

Rulemaking Goals

- Maintain reasonable assurance
- Provide regulatory certainty and clarity
- Codify EP decommissioning actions



Graded Approach to EP

I. Fuel Loading and Low Power Testing

The NRC requires licensee emergency plans to be in place prior to operation. Because there is a limited radiological source term and because more than 10 hours is available before a potential release could occur, no findings and determinations on the state of offsite emergency planning is required to issue a license for low power testing and operation up to 5 percent of rated power.



Requirements for offsite plans



II. Power Operations

Emergency plans onsite and offsite must meet the 16 planning standards of 10 CFR 50.47(b). Plans are periodically inspected and are exercised biennially with participation by offsite response organizations (OROs). The NRC and FEMA evaluate the adequacy of these plans to verify that reasonable assurance of the public health and safety is maintained.

III. Decommissioning

The risk of a radiological release significantly decreases as the spent fuel decays, while increasingly more time becomes available to implement mitigation strategies, and if necessary, to initiate protective actions offsite. The NRC is in rulemaking to propose a graded approach to EP that is commensurate to the reduction in radiological risk at four levels of decommissioning:

- Permanent cessation of operations and permanent removal of all fuel from the reactor vessel
- Fuel in the spent fuel pool (SFP) has decayed such that a SFP fire cannot occur in less than 10 hours
- 3. Transfer of all fuel to dry cask storage
- 4. All fuel removed from site



Plant Lifecycle

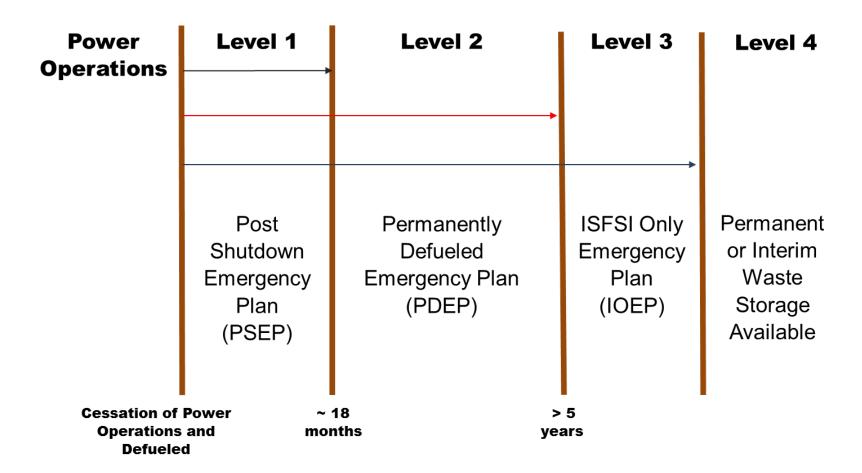
Fuel in Reactor Vessel

Fuel in Spent Fuel Pool

Fuel in Dry Cask Storage



Graded Approach in Decommissioning





Schedule

Proposed Rule/Draft Regulatory Guidance

- Published in the Federal Register on March 3, 2022
- Public comment period ended on August 30, 2022
- Public meetings were held early in the comment period

Final Rule/Final Regulatory Guidance

Goal is to publish the Final Rule mid-2024



EP for SMRs and ONTs Schedule

- Draft Final Rule delivered to Commission 1/3/22*
- Final Rule Publication Schedule Date 7/3/22

* https://www.nrc.gov/docs/ML2120/ML21200A055.html



Part 53 Adv. Rx Proposed Rule

Proposed Rule to Signature Authority: 2/28/2023

Proposed Rule Publication Date: 8/28/2023

Final Rule to Signature Authority: 12/27/2024

• Final Rule Publication Date: 6/27/2025

