



# **Decommissioning Funding Requirements and Oversight**

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## **Decommissioning Strategy Forum**

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## **Decommissioning Funding Overview**

- Reactor Licensee Requirements
- Minimum Funding Requirements and Formula Calculation – *initial and throughout operations*
- Methods of Financial Assurance
- Transition to Site-Specific Cost Estimate
- Decommissioning Funding Lifecycle
- Current NRC Rulemaking

# 10 CFR 50.75 – Reporting and Recordkeeping for Decommissioning Planning

- **Purpose**

- Provides *reasonable assurance* that funds will be available for decommissioning after a reactor ceases operations.

- **Initial Funding**

- Provided by licensee prior to authorization for initial fuel load and operation.

- **Licensee Accumulates Funds over Life of Operating Reactor**

- Reported to the NRC at least every two years.
- **Reported annually if within 5 years of cessation of operations and while in decommissioning.**

## Minimum Decommissioning Funding Requirement

- NRC Minimum Funding Amount (MFA) adjusted for changes in Labor, Energy, and LLW Burial costs over life of reactor.
- MFA varies by reactor based on:
  - Size of Reactor (MWt)
  - Type of Reactor (BWR vs. PWR)
- MFA is not a site-specific cost estimate.
- MFA covers **Radiological Decommissioning** only.

Does not consider spent fuel management, site restoration, and other non-radiological costs.

# **NRC Minimum Formula Amount = (Regulatory Formula Amount) x (Adjustment Factor)**

**Example Calculations (approximate estimates):  
PWR and BWR of 3,400 MWt Capacity or Greater  
(Data as of December 31, 2020)**

- **PWR** (\$105 million) x (labor, energy, and LLW burial adjustment factor of ~ 4.00 - 5.00)  
  
= ~\$420 - \$525 million \$US 2020
- **BWR** (\$135 million) x (labor, energy, and LLW burial adjustment factor of ~ 5.00)  
  
= ~\$685 million \$US 2020

# Funding Methods

- Prepayment
- External sinking fund
- Surety method, insurance, or other guarantee
- Statement of intent
- Contractual obligations
- Other mechanism or combination

## **Transition to Site-Specific Cost Estimate**

- At or about 5 years of the projected end-of-life, a site-specific cost estimate (SSCE) is required which includes a complete up-to-date assessment of major factors that could affect anticipated radiological decommissioning costs.
- The SSCE must be greater than or equal to the NRC Minimum Formula Amount.

# Decommissioning Fund Lifecycle

- Initial Certification of Financial Assurance.
- Maintain the NRC MFA throughout operating life of reactor; replaced by SSCE near end of operations and into decommissioning.
- **Monitoring and Updating of Decommissioning Funding -**
  - Licensee provides Decommissioning Fund Status Report to the NRC (every 2 years); **annually in decommissioning.**
  - Licensee Provides SSCE 5 years prior to permanent cessation of operations & in Post-Shutdown Decommissioning Activities Report.
  - NRC Inspectors coordinate decommissioning oversight with the technical decommissioning and financial assessment staff.



## *Transition to Decommissioning Rulemaking – Decommissioning Funding Assurance*

- Current **GUIDANCE** –
  - Non-rate-regulated licensees should make up shortfalls in decommissioning funding within 2 years and electric utility licensees within 5 years.
- Proposed **RULE** would -
  - Clarify that when a licensee identifies a shortfall in biennial report, must obtain additional financial assurance to cover the shortfall in the next report.
  - Modify biennial reporting frequency for operating reactors to 3-year frequency.
- The 3/3/2022 **notice** announcing the proposed **RULE** seeks public comment on four decommissioning funding issues –
  - Financial Assurance and the Minimum Formula Approach/Bulk
  - Site-Specific Cost Analysis
  - Decommissioning Trust Fund Assets for Spent Fuel Management and Other Uses
  - Timing of Decommissioning Fund Assurance Reporting

# Thank You!

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