

Overview of the U.S. NRC Reactor Decommissioning Program – Challenges and Issues

Health Physics Society Midyear Meeting

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NRC's Mission



- NRC's mission is to ensure plant safety, whether the plant is operating, or transitioning from operating to decommissioning, and through the entire process until the plant has been radiologically decommissioned and the license is terminated.

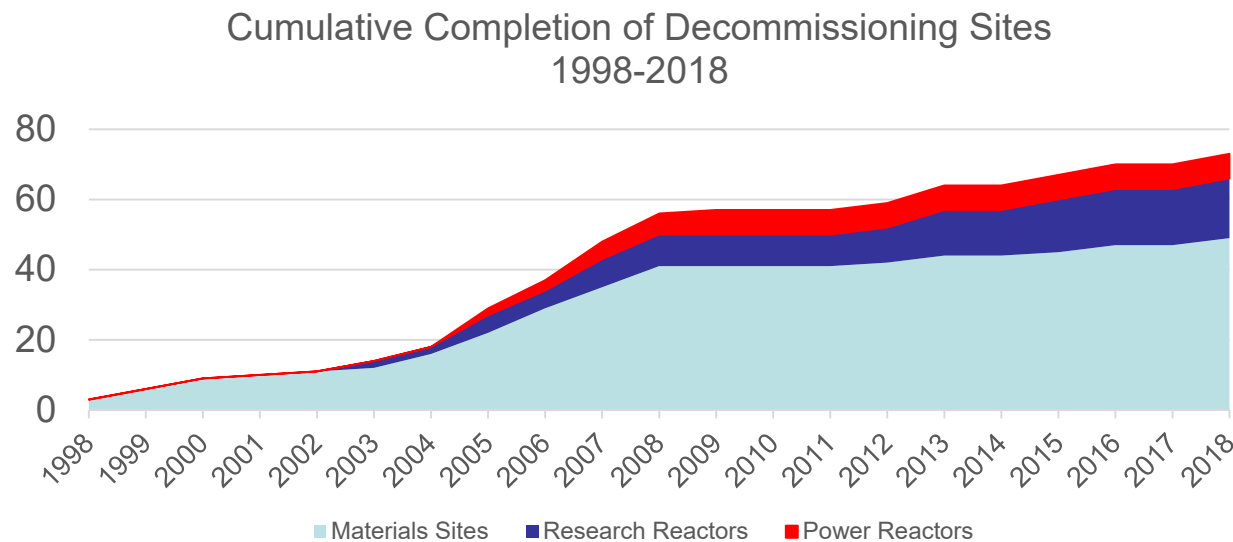
Present Status

- 13 Power Plants in active decommissioning
- 10 Power Plants in SAFSTOR
- 8 Announced shutdowns

Decommissioning Experience



- ❖ The NRC's current decommissioning regulations are performance-based and risk-informed
- ❖ Extensive decommissioning experience
- ❖ A total of 10 power reactor sites have completed decommissioning and had the reactor licenses terminated for unrestricted use



Decommissioning Program Regulatory Framework

Decommissioning Program

Atomic Energy Act of 1954, as Amended, Statutory authority

- Integrated Decommissioning Program

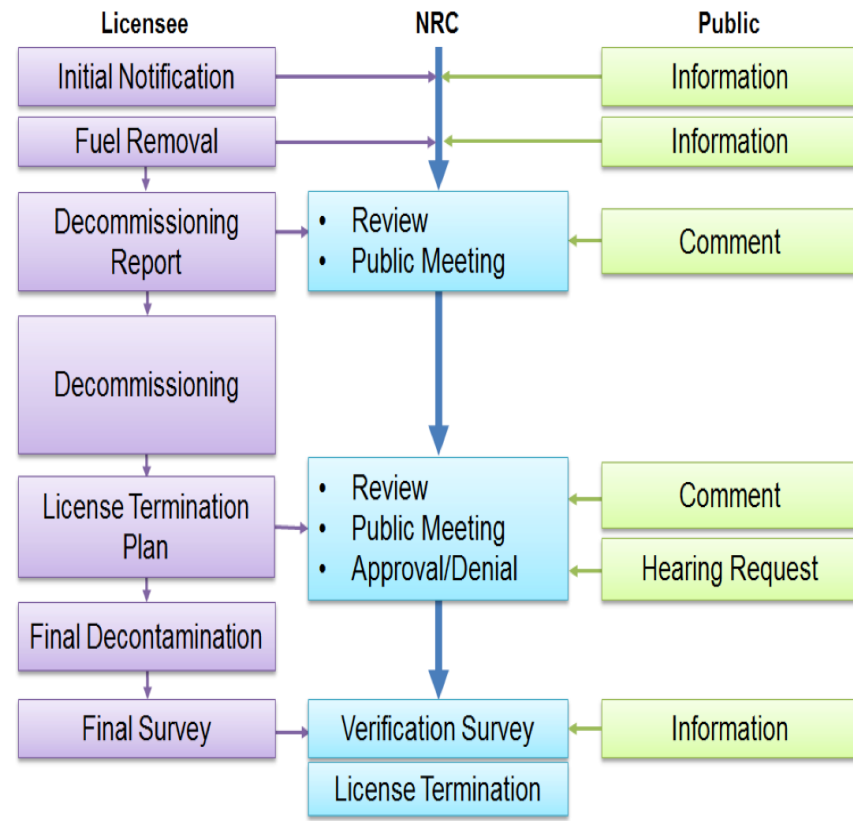
Comprehensive regulations:

- Public involvement
- Environmental review
- Financial assurance
- Site characterization
- Site remediation/Radiological clean-up
- Final site surveys

Regulatory guidance

Oversight and inspection

Decommissioning Process



Decommissioning Process

CFR 50.82/Regulatory Guide 1.184

- Notification of intent to permanently shut down
- Submission of certifications of permanent shutdown and permanent removal of fuel from reactor vessel*
- Post Shutdown Decommissioning Activities Report (PSDAR) and NRC public meeting
- Decommissioning must be completed within 60 years of permanent cessation of operations.
- License Termination Plan (LTP) is submitted 2 years prior to requesting license termination and NRC public meeting to obtain public comments on the LTP.
- NRC terminates the license by letter

* 2nd certification -- licensee cannot return fuel to the reactor and operate the plant

Reactor Decommissioning Inspection Program

- Continues until the license is terminated
- Inspection Manual Chapter 2561
- 35 inspection procedures
- Minimum annual inspection - 12 core procedures are required each year
- Resident Inspector up to 1 year after shutdown, but can be extended
- Inspection Reports are publically available

Maine Yankee



Rancho Seco



Humboldt Bay



La Crosse



Zion 1 & 2



Summary

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Questions?

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