Accelerated Decommissioning, A Key Ingredient to Nuclear Sustainability

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"No matter how complex global problems may seem, it is we ourselves who have given rise to them. They cannot be beyond our power to resolve."

Daisaku Ikeda

Industry Accomplishments and Advances



- Dry fuel storage
- Segmentation of reactor vessels and internals
- Packaging, shipping, and disposal of wastes and recycling of reusable materials
- Project planning and execution
- Gradual acceptance by State and local communities
- Responsible management of trust funds
- Results: overall accelerated decommissioning project timelines are expected to achieve a nominal 8-year norm

Notable Achievements





Challenges Remaining



- On the "front end," establishing a durable regulatory framework for transitioning from operations through decommissioning
- In the "middle," achieving a higher degree of industry collaboration to minimize risks and continually improve performance
- On the "back end," creating a stable, practical, and risk-informed license termination process

Meeting the Challenges?



- Durable regulatory framework
 - NRC SRM-SECY-18-0055, Proposed Rule—Decommissioning Transition
- Achieve higher degree of industry collaboration
 - Broadened access to EPRI Decommissioning Hub
 - Industry conferences, working groups, and issue-specific forums
 - Creation of NEI Decommissioning Executive Task Force
- Stable, practical, and risk-informed license termination process
 - Develop solutions to technical issues and methodologies for unrestricted release
 - Align industry and the NRC to a common standard and process for achieving safety goals in license termination (stay tuned for NEI 22-01)

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Humboldt Bay Today



NEI

Zion Today



LaCrosse Today



NEI 22-01, "License Termination Process"



- Consolidated guidance for preparing a commercial nuclear site for unrestricted release:
 - Conducting license termination preplanning (before cessation of operations)
 - Characterizing the site
 - Developing a license termination plan (LTP)
 - Developing a final status survey (FSS) plan
 - Demonstrating compliance with the LTP
 - Reporting FSS results
 - Using advanced technologies
 - Establishing a typical timeline and protocol for NRC, State, and local interfaces
- Draft June 2022; submit to the NRC for endorsement by the end of 2022.



Conclusion:

The future of accelerated DECON, while promising, is still a work in progress.