

Decommissioning

Rod McCullum, NEI

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NEI 1

The Big Picture

- NRC Project AIM 2020
 - "helping the agency to accomplish the agency's safety and security mission more effectively and efficiently while operating with fewer resources as the agency contracts during the next several years."

NEI 2

**Decommissioning Landscape
Current Situation**


- 11 plants have safely completed decommissioning
- 18 plants in the process of decommissioning
 - 5 plants* most recently shutdown face a regulatory environment that has evolved significantly since 2000
 - Recently shutdown plants have higher dependence on licensing actions (amendments/exemptions) during transition
- 3 plants** have announced near term shutdown

NEI 3

*Kewaunee, Crystal River 3, Vermont Yankee, & SONGS 2 & 3
**Pilgrim, Fitzpatrick, & Oyster Creek


Stages of Decommissioning

- Permanent Defueling
 - Well established and proven regulatory framework
- Spent Fuel Management
 - Well established and proven regulatory framework
- SAFESTOR
 - Well established and proven regulatory framework
- Radiological Decommissioning
 - Well established and proven regulatory framework
- Site Restoration
 - Outside NRC Purview


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Decommissioning Rulemaking History


- NRC's 1996 Decommissioning Rulemaking provided structure and stability to the decommissioning process
 - But this action did not address the transition from operating to and through the stages of decommissioning
- In 1999 staff provided the Commission a recommendation for an integrated rulemaking to address the risk reduction that occurs with this transition
 - This rulemaking was soon overtaken by events and put on hold
- In 2014, the Commission directed staff to resume rulemaking activities


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Timeline

Timeline Details:


- 2012:** San Onofre Closes
- 2013:** Kewaunee Closes
- 2014:** Vermont Yankee Closes
- 2015:** Commission directs staff to complete Decommissioning Rulemaking by 2019
- 2015:** NEI Requests staff release; SECY responding to Commission
- 2016:** ANPR responses due (3/18/16); NRC ANPR considers broad scope rulemaking; NEI requests targeted scope rulemaking; SECY released – staff says schedule “challenging”
- 2017-2019:** Planned Closures of Fitzpatrick, Pilgrim, and Oyster Creek
- 2019:** NRC's Current Rulemaking Target


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Transition Between Stages

- Licensing Actions (exemptions and/or license amendments) are required to move from operating plant to decommissioning requirements at the following points:

Transition Points	What is Transitioning
Permanently Defueled	Emergency Preparedness (EP), Security, Work Hours, Staffing/Training, Use of Trust Fund for Spent Fuel Expenses
Permanently Defueled – with qualifying SFP analysis	EP, Insurance
All Fuel in Dry Storage	EP, Security, Staffing/Training, Foreign Ownership
All Fuel Removed from Site	EP, Security


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Decommissioning Licensing Actions


- Experience of plants shut down prior to 2000
 - Transition was relatively straightforward and efficient
- Experience of plants shut down since
 - Transition process has become uncertain, time consuming, and inefficient
 - Cost of obtaining licensing actions typically >\$1.5M
 - Cost of complying with operating plant requirements while awaiting licensing actions typically >\$1M/month
 - Licensing action approval times typically between 12 and 18 months


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Decommissioning Rulemaking Today

*NRC's Advanced Notice of Proposed Rulemaking**

- “the need for a power reactor decommissioning rulemaking is not based on any identified safety-driven or security driven concerns.”
- “the primary objective of the decommissioning rulemaking is to implement appropriate regulatory changes that reduce the number of licensing actions needed during decommissioning”


*80 Fed. Reg. 72,361, November 19, 2015
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Conclusion

- Any decommissioning rule must be carefully evaluated in the overall context in which today's nuclear industry exists
- Any proposed rule must be consistent with the objectives of Project AIM
- Industry is weighing the possibilities and will offer a thorough response to NRC's Advanced Notice of Proposed Rulemaking
