

Decommissioning Rule Update

NEI EP Decommissioning Workshop
October 19 – 20, 2016

Edward Roach

Senior EP Specialist, Policy and Oversight Branch

Division of Preparedness and Response

U.S. NRC

Decommissioning Rule Update

NRC Rulemaking Team Members

- Office of Reactor Regulation (NRR): Mitigating strategies, certified fuel handler, insurance, fuel management, funding
- Office of Nuclear Security and Incident Response (NSIR): EP, security, cyber-security
- Office of Nuclear Material Safety and Safeguards (NMSS): Dry cask storage
- Office of Nuclear Regulatory Research (RES): Research support

Decommissioning Rule Update

- Near-Term Activities
 - Nov. 2015: Issued ANPR (comment period ended 3/18/16)
 - Dec. 2015: Conducted ANPR public meeting
 - Sep. 2016: Developed draft regulatory basis
 - Prior to end of CY 2016: Publish draft regulatory basis in Federal Register (FR)
- Future Activities
 - June 2017: Publish Final Regulatory Basis
 - Apr. 2018: Proposed Rule & draft guidance
 - 2019: Publish Final rule and guidance

Decommissioning Rule Update

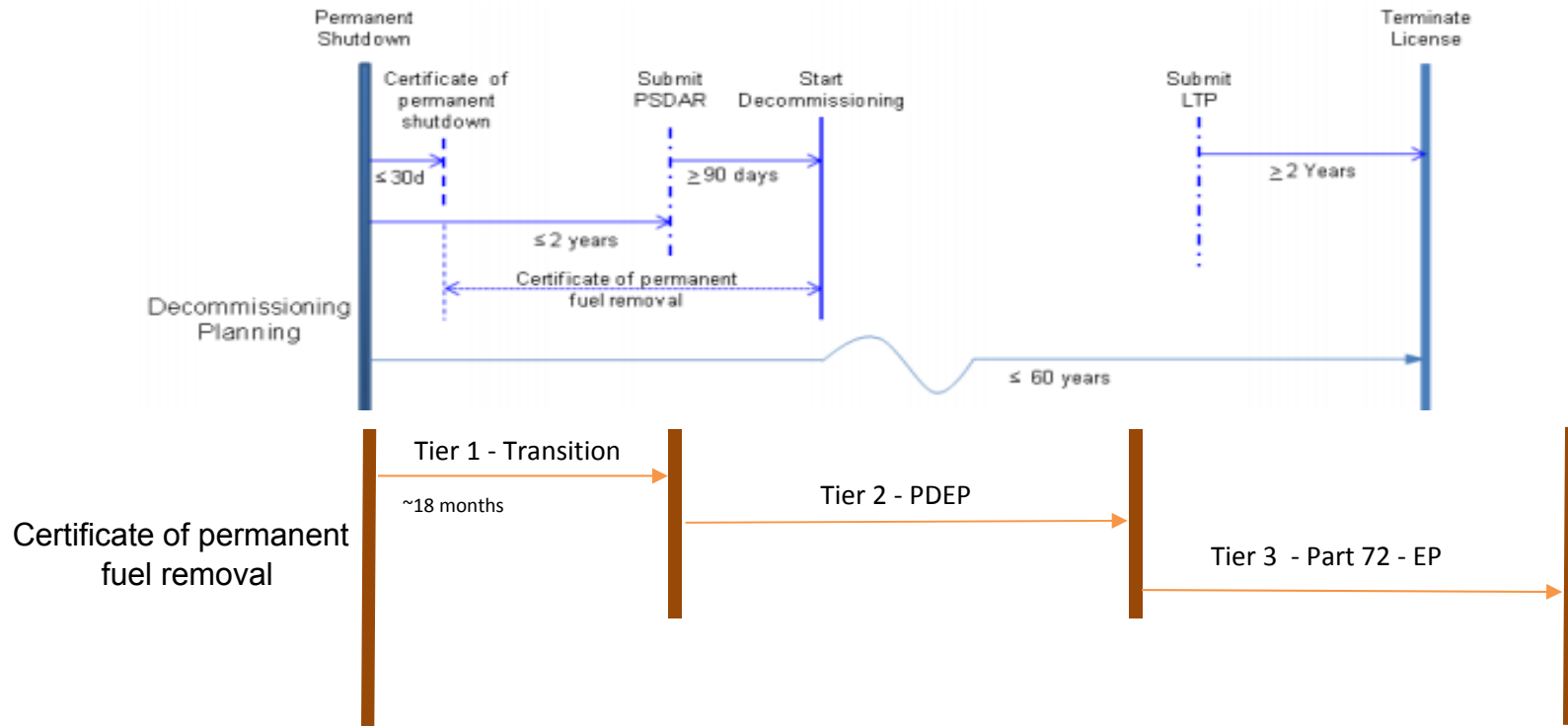
- Proposed Approach to Rule Changes
 - Graded approach
 - Tier 1-Fuel removed from vessel
 - Tier 2-Fuel in SFP (10 hour Adiabatic Heat up)
 - Tier 3 -Fuel in ISFSI
 - Tier 4- No Fuel on site
 - Regulations to evaluate / change
 - Section 50.47(b)
 - Section 50.54(q)
 - 10 CFR Part 50, Appendix E
 - Section 72.32(c)

Decommissioning Rule Update

EP-Related Research Areas:

- Task analysis to determine time for on-shift organization to mitigate SFP drain down event (Tier 1 and 2)
- Analysis to determine spent fuel decay time needed to have 10 hours to reach fuel cladding ignition temp. (Tier 2)
- Analysis of offsite dose rates to demonstrate additional time margin (greater than 10 hours) available before offsite exposures become excessive from fuel cladding fire source term

Decommissioning Rule Update



Philosophy:

Regulations:

EP Elements:

Defense in Depth, Reasonable Assurance, Risk-Informed
 10 CFR 50.47 & Appendix E, 10 CFR 50.54(q), 10 CFR 50.54.x
 10 CFR 50.54(s)(2)(ii) – continue to maintain reasonable assurance
 10 CFR 50.54(s)(3), 10 CFR 50.54(t), and 10 CFR 50.72
*Inspection, Exercise Cycle, Offsite Coordination (CEMP),
 EP Guidance*