NEI 22-01, License Termination Process

NRC Pre-submittal Meeting

November 16, 2022

NUCLEAR ENERGY INSTITUTE

Introduction to NEI 22-01, License Termination Process

- Culminates extensive body of regulatory guidance and past industry experience into a practical “how to”
- Provides user with appropriately selective references to applicable regulations, NUREGs, and other guidance
- Further “consolidates” NUREG-1757,Vol. 2 guidance to reflect the specific needs of commercial nuclear power reactors
- Provides many examples of how license termination tasks have been completed with NRC approval at decommissioned sites
- Includes suggested planning milestones, timelines, and stakeholder interfaces to promote transparency and efficiency.

The NEI 22-01 Team

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Chapter 1: Introduction to the License Termination Process

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  - Partial Site Release Requirements
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- 2.2 Types and Numbers of Samples
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  - Concrete Dust Collection through small Hollow-Core Drilling (TruePro™)
  - Concrete Laser Ablation and Collection
  - In-situ Gamma Spectroscopy
- 2.2.2 Numbers of Concrete Measurements/Samples
- 2.2.3 Surface Soil Samples
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- 2.2.5 Radiological Analysis Strategies
  - Selection of Analysis Suites and Establishing the Initial Radionuclides of Concern (ROC)
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Chapter 2: Site Characterization (cont.)

- 2.3 Radiological Data Assessment
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- 3.5 Waste Disposal Plans
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- 4.3 Remediation Levels and ALARA Evaluations
  - 4.3.1 Generic ALARA Screening Levels
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- 4.4 Techniques & Approaches to Remediating Structures, Soils, and Groundwater
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- 5.1 Standard Final Site Survey (FSS) Techniques
  - 5.1.1 Data Quality Objectives
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Chapter 5: Final Radiation Survey Plan (cont.)

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  - 5.2.9 Survey of Non-RCA Buildings
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Chapter 5: Final Radiation Survey Plan (cont.)

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  - 5.3.1 Residual Radioactivity in Surface Soils
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    - Fixed Measurement Requirements
    - Background Reference Area Determination
  - 5.3.2 Residual Radioactivity in Subsurface Soil
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    - FSS of Caisson Area at Humboldt Bay
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  - 6.1.4 NUREG 1757, “Consolidated Decommissioning Guidance
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    - Big Rock Point - Modified Resident Farmer Scenario
    - Rancho Seco - Industrial Use Scenario
    - Zion Resident Farmer Scenario
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Chapter 6: Compliance with Radiological Criteria for License Termination (cont.)

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NEI 22-01 Schedule

Action	Date
• Complete Draft Rev. 0, distribute for industry review	• November 15
• Pre-submittal Meeting	• November 16
• Submit to NRC for review	• December 15, 2022
• Submit fee waiver request	• December 15, 2022
• Respond to NRC RAIs, as needed	• 2023
• NRC approval (desired outcome)	• TBD

Closing Thoughts

- Success in DECON is a key enabler in demonstrating the sustainability of commercial nuclear energy
- Progress is being made on front end with the proposed transition rule, emphasis needs to shift to improving efficiencies on the “back end”
- License termination remains one of the most technically challenging and time-consuming aspects of DECON, and companies face many uncertainties during planning and execution
- NRC and industry should continue to focus on those issues most relevant to public health and safety and protection of the environment
- A strong bias for action is imperative to close gaps in regulatory guidance to better serve the communities with plants undergoing DECON today

