Industry Lessons in Decommissioning Project Management

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Carrying Zion Lessons Forward

Lesson Learned:

A sacrificial soil layer was relied on to capture any contamination from Class A waste piles.

Inside containment, waste processing tents with a layer of geo textile was used with an asphalt pad inside, and a negative pressure, HEPA-filtered ventilation system.

The tented structures were adequate, but the sacrificial soil approach required changes.

Carrying Zion Lessons Forward (cont.)

Improvements implemented:

- No waste is no loner allowed to be stored outside in weather.
- Haul paths to waste processing structures are scanned weekly.
- Waste processing facility openings undergo “face velocity” analysis to determine what site wind conditions support maintenance of a negative pressure envelope.
- Waste production schedules were changed to “flatten” the waste production and transportation curve during decommissioning, eliminating the need to stockpile.

These improvements are producing results as expected and will be continued at west coast and ES owned facilities.

Managing RV Internals Cutting Debris

Lesson Learned:

- Once fuel has been moved to the ISFSI, the largest remaining source term in the plant is the Reactor Vessel Internals. Less than adequate chip management (chips are creating during mechanical cutting of internals components) can result in chips moving outside the cavity.

Managing RV Internals Cutting Debris (Cont.)

Lessons incorporated at other facilities:

- More extensive rinsing of class A, B/C liners before being placed in a shipment cask. This is followed up by smears looking for chips.
- Raised standards and metrics for chip collection at facilities going through RVI work.
- Development of plans, strategies, and processes to collect any residual chips during equipment removal such that they can be consolidated for removal, packaging, and shipment.
- Design modifications for all T-bell designs to prevent mechanical over travel.

LTP Complexity

- As the largest commercial nuclear facility decommissioned, Zion submitted in excess of 40,000 pages associated with the LTP, release records, and RAI responses. Efforts must be undertaken to streamline submittals and where possible, organize data such that reviewers can “follow the string” from generation of site specific DCGLs, hard to detects, survey design etc.

- NEI suggests a followup session where suggestions can be discussed and considered around organization of data and reports.

Workforce

- As an industry we are dealing with an aging workforce. License termination is a highly technical, specialized process that requires years of experience and mentoring to create competent professionals for this field. NEI members have had success in hiring and developing new talent through a combination of advanced, specialized graduate level courses, extensive training, and development of training materials that incorporate qual cards, etc.

- What can NEI members do to share our results of these efforts with NRC, including providing reference materials?

Lessons from Oyster Creek

- **Waste Reduction in the Decommissioning Process**
  - Recycling / Reuse of material and components
  - Isolation and segmentation of higher waste class materials
  - Reduction of processes that Result in Generation of Additional Waste

- **Use of Innovation to improve Worker Safety and Efficiency**
  - Dose Reduction through remote operation
  - Mitigating High Heat Stress Conditions

End of Indsutry Presentation 1

Lessons in License Termination Planning and Execution

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Licensee and NRC communication

- Early engagement with NRC for LTP
- NRC reviewer front-end involvement for site familiarity
- Regional involvement in QA/QC of LTP/FSS processes
- Direct interaction on RAI clarification between licensee and HQ reviewers/PM

Consistent quality products for LTP and reports

- Review of recent RAIs and incorporation into LTP submittal
- Utilize checklists for LTP submittals and reports for completeness
- Goal of NEI 22-01 to drive consistency

Need to streamline LTP and FSS reports to restrict copious amount of verbiage and data in submittals

- Utilize QA/QC of programs to limit data requirements
- Similarly, characterization data could be limited in LTP submittals
- Define limits to “stand alone” for reports

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