

WHAT EVERY REGULATOR SHOULD CONSIDER IN A POST-YUCCA WORLD

NRC DECOMMISSIONING FUND WORKSHOP

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The New Waste Confidence Rule

- Spent fuel can be stored safely and without significant environmental impacts for at least 60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor in a combination of storage in its spent fuel storage basin and at either onsite or offsite independent spent fuel storage installations.

The New Waste Confidence Rule

- The Commission believes there is reasonable assurance that sufficient mined geologic repository capacity will be available to dispose of the commercial high-level radioactive waste and spent fuel generated in any reactor when necessary.

If wishes were horses



Planning

- Realistically there is no repository on the horizon.
- State's may have SNF on site for an indefinite period of time.
- Need to plan for SNF management by your Licensee indefinitely.



Shut down

100+ years

OPERATOR RESPONSIBILITY

- EACH OPERATOR OF A NUCLEAR PLANT HAS AN ABSOLUTE RESPONSIBILITY TO MANAGE SPENT NUCLEAR FUEL UNTIL DOE TAKES THE FUEL.
- NOT SUGGESTING THE STATE'S ARE RESPONSIBLE ONLY THAT EACH STATE MAKES SURE ANY LICENSEE HAS THE NECESSARY FUNDING FOR SNFM.

NRC Requirements

- 50 CFR 50.54(bb) requires licensees within 2 years following permanent cessation of operation of the reactor or 5 years before expiration of the reactor operating license, whichever occurs first, submit written notification to the Commission for its review and preliminary approval of the program by which the licensee intends to manage and provide funding for the management of all irradiated fuel at the reactor following permanent cessation of operation of the reactor until title to the irradiated fuel and possession of the fuel is transferred to the Secretary of Energy for its ultimate disposal in a repository.

WHAT STATE'S MAY CONSIDER

- The Decommissioning Trust Fund is for radiological decommissioning of the plant. It is not meant for SNFM. A Licensee would have to get a waiver from NRC to use the DTF for SNFM.
- Because the NRC regulation on SNF only kicks in at best 5 years prior to projected expiration of license, you may want to consider having your Licensee build a fund for SNFM.
- Why wait until 5 years before end of life to start saving for SNFM?

EST. COST OF SNFM

- Monitoring, maintaining and securing the SNF at an ISFSI will cost between \$4 M and \$8 M per year.
- Consider having your Licensee building a fund over the remaining operating life of the reactor that would throw off \$6 M into perpetuity.



EXAMPLE USING VT YANKEE

- Various scenarios exist under the latest decommissioning cost study of Vermont Yankee. One is that it will take approximately \$915 M for the complete job. This includes :
 - \$656 M for radiological decommissioning
 - \$219 M for SNF if DOE removes fuel by 2042 (unrealistic)
 - \$40 M for site restoration (greenfield)
- The value of the Vermont Yankee Decommissioning Trust on Jan 31, 2011 was \$479,025,703 plus a Parent Company Guarantee of \$40M. (Total \$519,025,703)

Considerations

- Merchant plant v rate regulated
- DOE damages for breach of contract
- Large decommissioning fund balance
- Any agreements you may have with your Licensee

QUESTIONS AND DISCUSSION