



NRC Perspective on Spent Fuel



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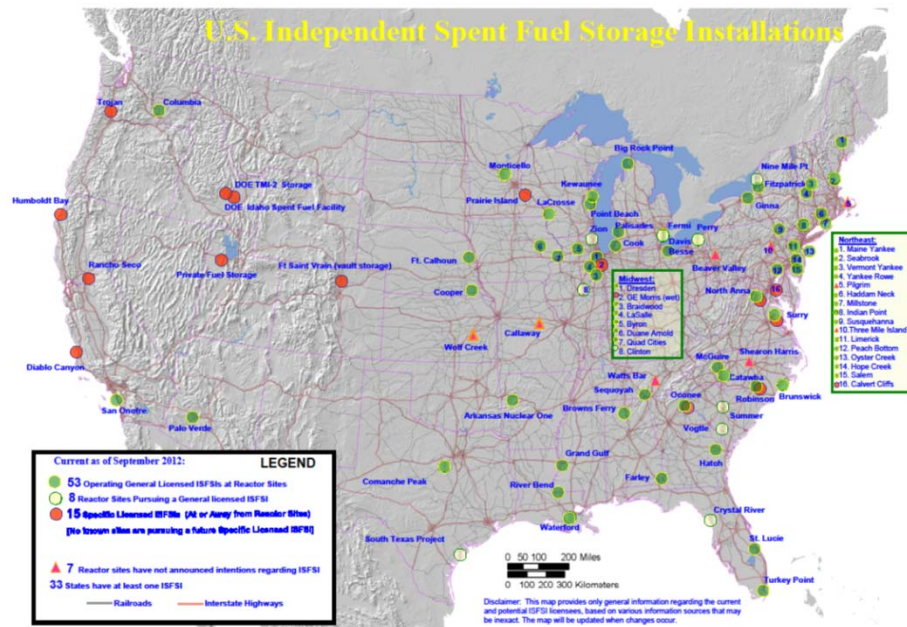
Overview

- Spent fuel storage status
- NRC priorities
- ISFSI renewal status
- Interim consolidated storage
- Special issues
- Fukushima lessons learned



Spent Fuel Storage Status

- 53 General Licensed ISFSIs
- 15 Specific Licensed ISFSIs
- Planned future ISFSIs
 - 8 anticipated 2013-2014
 - All new ISFSIs planned to be generally licensed
- Over 1700 dry storage systems loaded



NRC Priorities



- ISFSI renewals and Waste Confidence
- Reasonable and predictable regulation
- Licensing Program Improvements
- Interim consolidated storage application(s)
- Risk informing regulatory activities



ISFSI Renewals

- Pending completion of NRC review and Waste Confidence Rulemaking
- Prairie Island
 - Contentions
 - Three admitted
 - Two in abeyance (Waste Confidence)
- Calvert Cliffs
 - No contentions



Interim Consolidated Storage

- Review of regulations complete
 - No changes required
- “Strategy for the Management and Disposal of Used Nuclear Fuel and High-Level Radioactive Waste” - January 2013
 - 2021 planned operations
 - Application(s) must be timely, accurate, and complete



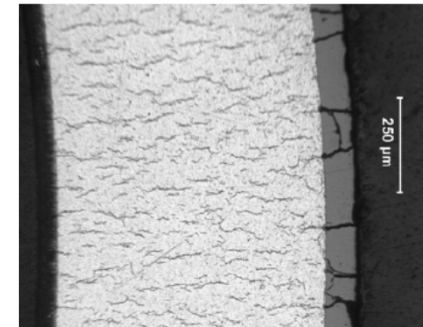
Interim Consolidated Storage (cont.)

- Review not currently budgeted pending degree of assurance that application(s) are incoming
- Much of spent fuel currently stored is not in transportable casks which may require additional licensing actions and transfer activities



Special Issues

- High Burnup Fuel (HBF)
 - Established task force
 - Develop licensing strategy prior to WC rulemaking
 - Finishing first phase – extent of condition
 - Plan to request stakeholder feedback mid-2013
 - Demonstration program
- NRC research
 - Oak Ridge National Laboratory reconfiguration consequence analysis
 - Argonne National Laboratory studies



Microscopic View of
Fuel Clad Hydrides



Special Issues (cont.)

- Stress Corrosion Cracking
 - Extended Storage Collaboration Program coordination
 - Information Notice November 2012 (ML12319A440)
 - Failure mechanism and detection testing
- Learning Aging Management Programs
 - HBF and stress corrosion cracking issues
- Extended storage and transportation



Fukushima Lessons Learned

- Spent Fuel Pool Scoping Study
 - Comparative risk studies
 - Determine if expedited transfer of spent fuel from pools to dry cask storage is justified
- Tier 3 Objective:
 - Confirm, using insights from Fukushima, that SFPs and dry cask storage provide adequate protection, determine if significant safety benefits (or detriments) occur from expedited transfer of spent fuel to dry casks.



