



A Look at the Past, Present, and Future

Mark Lombard
Director, Division of Spent Fuel Management
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
INMM Spent Fuel Seminar 2014
January 13, 2014

Overview



- Ghost of Fiscal Year Past



- Ghost of Fiscal Year Present



- Ghost of Fiscal Year Future



Look back



- Almost 2,100 storage systems deployed around the US and growing
- Completed 71 transportation cases
 - MP-197 (first canistered HBF package after storage)
 - 435B (large activity sealed sources)
 - SAFEKEG HS (research isotopes)
 - RT-100 (new LLW package, Class A/B)
- Completed 17 storage cases
 - UMAX (first underground system to be deployed)
 - NUHOMS Amendments 11 and 13
- Met processing time metrics
- Issued final Extended Storage and Transportation Technical Information Needs Report



Look back



- Developed and used revamped renewal process (more than 20 public meetings)
- Received industry renewal guidance, NEI 14-03
- Delayed License Process Improvements (LPI) due to higher priority work
- Finished first phase of transportation testing on actual fuel samples
- Expanded public interaction
- RegCon
- Kicked off risk initiative



Current Fiscal Year So Far



- Continued Storage Rule effective
- Issued Calvert Cliffs ISFSI renewal
- Started TN 1004 review
- Issued M-290 CoC
- Issued LWT L-HEU package CoC
- Last system loaded at Zion



Current Fiscal Year Plan



- Complete VSC-24 renewal
- Complete Prairie Island renewal Environmental Assessment and Safety Evaluation Report
- Respond to NEI 14-03 and revise NUREG 1927
- Complete draft Managing Aging Process for Storage (MAPS) NUREG
- Risk tasks – Defense in Depth and safety goals



Current Fiscal Year Plan



- Issue High Burnup Fuel (HBF) Regulatory Issue Summary (RIS)
- Complete NRC feedback on NEI 12-04, guidance on 72.48, by second quarter
- Issue HBF Consequence Analyses
- Issue HBF Phase 1 test results and complete and issue HBF Phase 2 test results



Current Fiscal Year Plan



- Complete technical report on functional monitoring of dry cask storage systems (DCSS)
- Complete technical report on stress analysis of fuel cladding in DCSS
- Complete technical report on vertical DCSS thermal analysis for TN-32
- Establish concrete expert panel, conduct a workshop and complete technical report



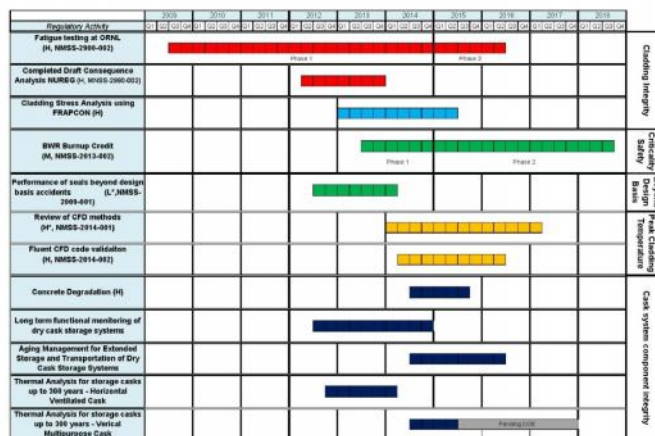
Current Fiscal Year Plan



- Begin validation studies of thermal computer codes
- Wrap up the NRC's Transportation Fire Studies
- Continue with LPI
 - Retrieveability
- Engage ASME Code Committee
- First cut at research tracking and planning tool



Research activity tracking and planning tool



Looking further forward



- Interim Consolidated Storage Facility application?
- Additional canister inspections?
- YGIAGAM

