

Continued Storage Rule/Yucca Mountain Safety Evaluation Report – Status Update

Keith McConnell, Special Assistant
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission

Continued Storage U.S.NRC United States Nuclear Regulatory Commission Protecting People and the Environment Background

- Historically, Commission's generic determination about spent fuel storage
- Two parts
 - Waste Confidence Decision
 - Generic statement about storing spent fuel
 - Repository availability
 - Rule codifying environmental impacts
- Court vacated 2010 version

Outline of Effort



- EIS scoping October 25, 2012 January 2, 2013
- Scoping Summary Report March 2013
- Published draft statement and proposed rule on September 13, 2013
 - Comment period ended December 20, 2013
- Draft final statement and rule July 21, 2014
- Published final statement and rule –
 September 19, 2014

Final Rule



- a) The Commission has generically determined that the environmental impacts of continued storage of spent nuclear fuel beyond the licensed life for operation of a reactor are those impacts identified in NUREG-2157, "Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel."
- b) The environmental reports described in §§ 51.50, 51.53, and 51.61 are not required to discuss the environmental impacts of spent nuclear fuel storage in a reactor facility storage pool or an ISFSI for the period following the term of the reactor operating license, reactor combined license, or ISFSI license. The impact determinations in NUREG-2157 regarding continued storage shall be deemed incorporated into the environmental impact statements described in §§ 51.75, 51.80(b), 51.95, and 51.97(a). The impact determinations in NUREG-2157 regarding continued storage shall be considered in the environmental assessments described in §§ 51.30(b) and 51.95(d), if the impacts of continued storage of spent fuel are relevant to the proposed action

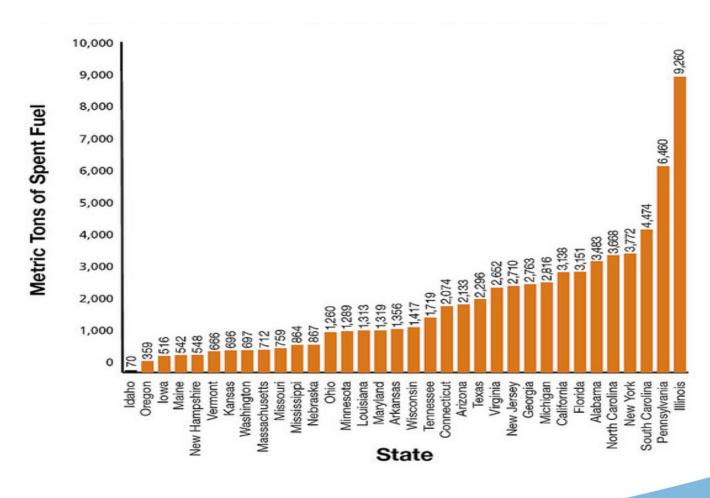
Yucca Mountain SER



- Completed
- Publication
 - SER Volume 1 August 2010
 - SER Volume 3 October 2014
 - SER Volume 4 December 2014
 - SER Volumes 2 and 5 January 2015
- Remaining Tasks
 - Complete the environmental supplement
 - Make records more accessible

Spent Fuel in Storage

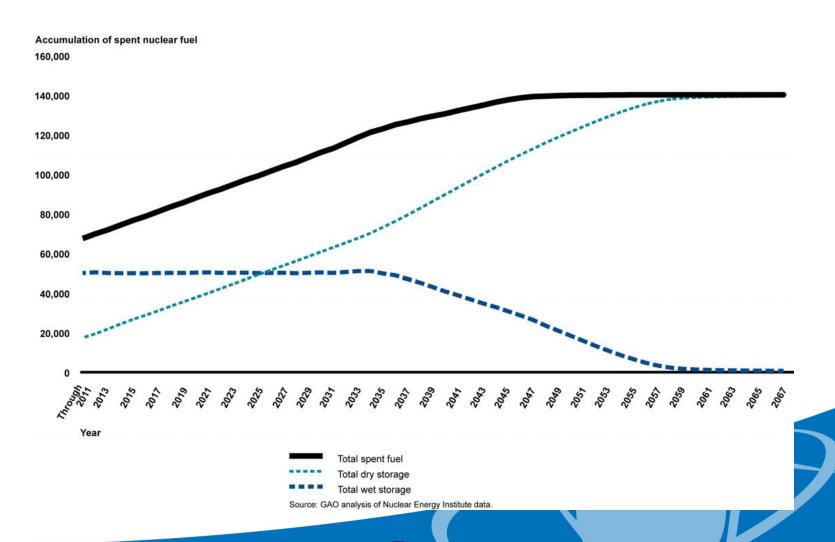




Spent Fuel in Storage



(source: GAO 2012)



Spent Fuel Facts



- Spent Fuel accumulating at a rate of ~ 2,000 MTU/yr
- DOE estimate of liabilities \$20.7 B thru 2020; \$500 M/yr after that
- Operational ISFSIs at 64 sites
- Estimated annual ISFSI operating expenses - ~ \$2 – 6.4 M/yr (?)

Continued Storage Conclusion



 "most likely outcome is that a repository will become available by the end of the short-term timeframe, or within 60 years after the end of the reactor's licensed life for operation"