

## EPRI DISCUSSION OF COMMERCIAL SPENT FUEL INVENTORIES:

- The utilities have no option but to continue storing fuel at their sites
- The utilities have done the following to manage the growing inventories of spent fuel:
  - Reracking in the pools,
  - Move fuel to dry storage
  - Increase fuel burnups,
  - Licensed a centralized storage facility in Utah (but stopped before construction due to inability to obtain necessary federal permits)
- As of the end of 2009, the utilities had the following stored at their sites:
  - In-pool (“wet”) storage: 170,000 assemblies
  - Dry storage: 52,000 assemblies in 1200 storage casks
  - Over 20 different dry storage cask designs are in use, most of which will require different handling for transport and re-opening
  - About 63,000 MTU (metric tons of uranium)
- Projected on-site spent fuel inventories by the end of this century
  - No new nuclear plants, 60-year plant lifetime:
    - 133,000 MTU at ~70 sites
    - ~11,000 dry storage casks
    - ALL spent fuel will be “stranded” at decommissioned sites (probably no spent fuel pools in operation at any site)
  - “Limited” nuclear expansion (add 1000 MWe/yr starting in 2015):
    - ~180,000 MTU at >70 sites
    - ~12,000 dry storage casks
  - “Larger” nuclear expansion (total capacity growth of 3% per year starting in 2015)
    - ~750,000 MTU at >>70 sites
    - ~47,000 dry storage casks
- Conclusion:
  - Utilities will continue with on-site storage on a plant-by-plant basis – barring clear, compelling national guidance
  - Used fuel storage should be integrated at the national level