

Yucca Mountain

Integration in a forward moving industry

USTC Yucca Mountain Summit III

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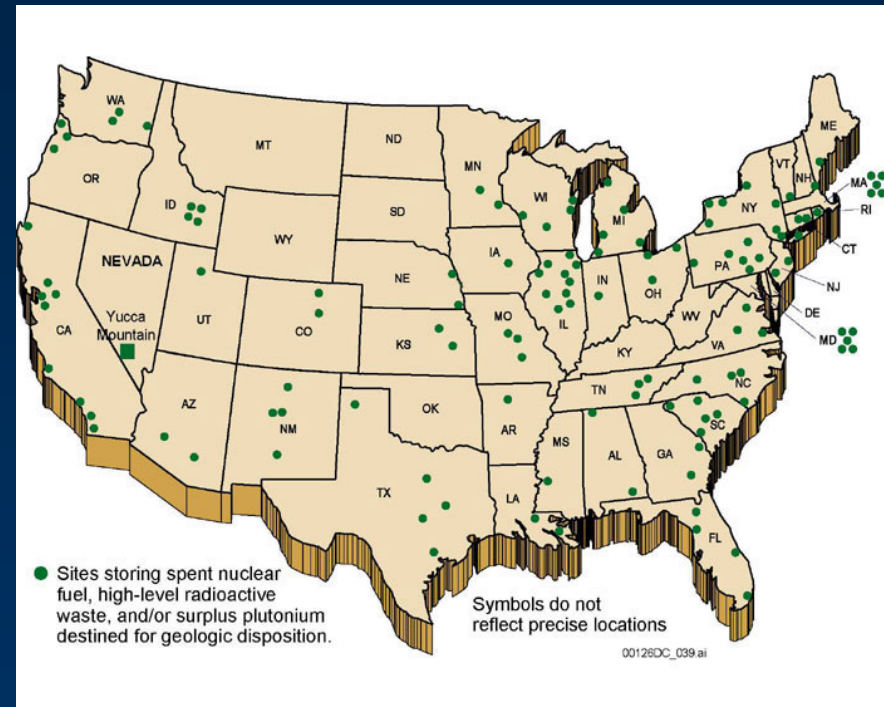
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NUCLEAR ENERGY INSTITUTE

Used Nuclear Fuel Storage

- Current commercial used fuel inventory
 - Approximately 52,000 MTU
- Current dry storage inventory
 - 7,200 MTU
 - 690 casks/canisters loaded
 - At 30 sites
- Future dry storage inventory by 2010
 - Estimating 13,500 MTU
 - 1,300 casks/canisters loaded
 - At 51 sites for 81 plants



The fundamental importance of nuclear energy demands progress on waste



- Nuclear Energy is:
 - US’s largest source of emission-free electricity and 2nd largest source of power – 20% of US electricity
 - Important to national security – not dependent on unreliable foreign supplies or subject to disruptions
 - “Baseload” capability that stabilizes US electric grid
 - Reliable low-cost energy supply due to strong operational performance
 - Becoming a preferred option for new generation, *independent of progress towards waste disposal*

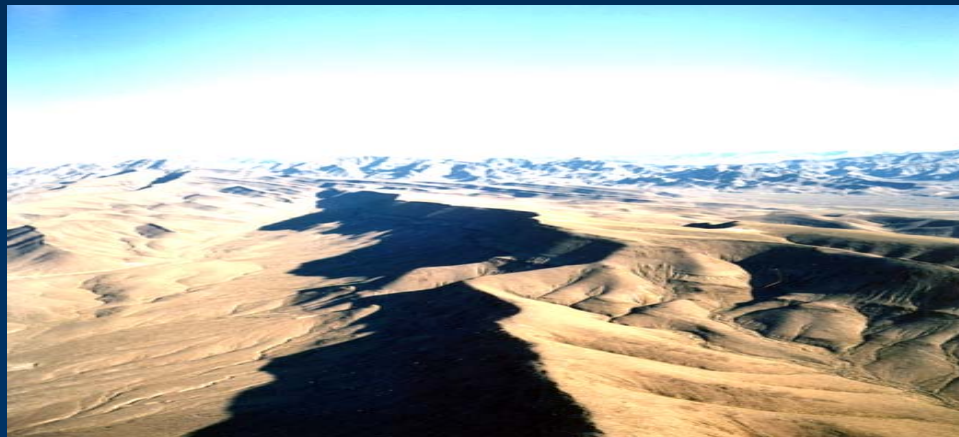
Yucca Mountain

- The Yucca Mountain project is of critical importance
- Ultimate disposal of commercial used fuel and defense waste must be achieved
- The Yucca Mountain licensing process must be completed in an effective and timely manner
- Considerable progress on technical issues has been made
- Government must maintain strong commitment to overcoming near term challenges
- Current strong support for nuclear energy provides opportunity for progress in used fuel disposal



Yucca Mountain: The Path Forward

- A high level waste repository remains essential to meet US energy, environmental, and national security needs under all policy scenarios.
- Research has determined that Yucca Mountain can serve as a scientifically sound geologic repository.
- Yucca Mountain can be licensed to standards that provide reasonable assurance of public health and safety.



The nation must actively support the successful licensing of a geologic repository at **Yucca Mountain**.

- **Old Paradigm**

- The construction of new nuclear plants was being held back by lack of progress on used fuel disposal

- **New Paradigm**

- Construction of new nuclear plants will drive progress towards disposal along with advanced waste management concepts

Integration must occur at all levels

- Integration will drive changes and enhancements to repository program
 - Innovative approaches must be explored and developed, but not adopted until production scale
 - We should not put cart before horse, program should move forward while enhancements being made
- Effective integration of repository and existing storage & transport systems will be key to timely waste acceptance
- System integration issues loom large in ongoing repository surface facility design effort
- Industry is prepared to work with DOE toward integration while preserving all contract rights
- Progress on integration will support repository licensing

Yucca Mountain Situation

- DOE has implemented significant management improvements
- EPA is addressing compliance beyond 10,000 years
- DOE recertification of licensing document availability certification should be made when the Department is confident it has a quality application to file
- DOE must announce a credible repository schedule

Yucca Mountain Situation

(continued)

- DOE has requested FY 06 funding of \$651 million
 - House provides \$661 million – interim storage & reprocessing – possible new legislation
 - Senate calls for FY 05 level of \$577 million
 - FY 05 funding was \$303 million below DOE request
 - Legislation still needed to assure Nuclear Waste Fund spent on intended purpose
- Contract disputes
 - Exelon settlement means the meter is running on DOE performance
 - Contract issues must not be a barrier to integration

Nuclear Waste Fund

(as of 3/31/05)

Billions

On-going (1 mill/kWh) *	12.176
One-time fee paid*	1.486
Interest earned in NWF *	9.491
Defense payments	2.636
Total costs	(8.464)
Balance	17.325

One-time fee owed: \$2.813 *

*Total customer commitments: \$25.966



EPA Standard Must be Addressed

EPA proposal includes:

- A two tiered dose limit
 - 15 millirem < 10,000y; 350 millirem > 10,000y
 - Provisions to address greater long-term uncertainty
- Long-term limit is protective, but poor policy
 - Focuses concern on unknowable beings 1 million years hence (evolutionary time), when focus should be on known, near-term generations.
 - Unending litigation could lead to not dealing with disposal

Yucca Mountain - Legal/Regulatory Framework

- Waste Confidence (10 CFR Part 51)
 - 51.23 specifies that the waste disposal question is not required to be considered in any reactor licensing action
 - NRC revisits Part 51 only if “unexpected events” cause doubt
- Yucca Mountain will be licensed in 3 stages (10 CFR Part 63)
 - Construction, Receive/Posses, & Closure
 - Period to closure = 50 to 300 years - or longer
- DOE required to monitor, conduct confirmatory analysis, and maintain retrievability until closure (10 CFR Part 63, Subpart F)
 - There is significant interest in enhancing this aspect of repository licensing, including from those in Nevada
 - Periodic review of license would further enhance long term assurance

Conclusion

- Yucca Mountain is an important national priority
- The repository is technologically sound
- Demand for new nuclear will be driving force in path forward
- Integration is key
- New paradigm will motivate integration
- Full appropriations and funding reform are still needed
- Interim storage should be pursued along with other program reforms and clarification of EPA standard
- The federal government must remain committed to continuing to move the program forward