

YUCCA MOUNTAIN – LESSONS LEARNED FROM NEVADA

Presented By: Bruce Breslow, Executive Director,
State of Nevada, Agency for Nuclear Projects

Part 1 – What Went Wrong?

The U.S. Department of Energy was probably the wrong entity to implement the federal high-level radioactive waste program and placing the program within DOE may have doomed it from the start.

- The very character of DOE, with its culture of secrecy, made it perhaps the wrong entity to implement a program that required the compromises and public credibility embodied in the Act.
- In Nevada, DOE created a hostile atmosphere almost from the beginning. As early as 1984, the State was forced to go to court to secure its independent oversight role – a role specifically provided for in the Act.
- Because of the heavy handed manner in which DOE has implemented the Yucca Mountain program and the long history of problems and mistrust, it would be difficult for a similar siting program headed by DOE to succeed in the future.

The Nuclear Waste Policy Act, as amended in 1987, created an adversarial role between DOE and the State of Nevada.

- Even if Yucca Mountain had turned out to be a suitable site (which it did not), Nevada would have been required to forfeit its legal and scientific oversight rights, if it were to enter into agreements with DOE.

Early on, it was known that the Yucca Mountain site had serious geotechnical problems, but DOE ignored or trivialized them, and proceeded to do whatever it took to make Yucca work.

- The focus of DOE's work on the project changed after the 1987 amendments to the Nuclear Waste Policy Act singled out Yucca as the sole site for characterization. DOE went from asking, "Is Yucca a suitable site?" to "What do we need to do to make the site work?" The "science" at Yucca deteriorated as time went on and DOE's site characterization program appeared to ignore findings that might disqualify the site.
- DOE petitioned Congress to exempt the site from health and safety regulations to get around suitability problems, and then scrapped its own site evaluation guidelines altogether when the site couldn't meet them.

Yucca Mountain failed for a lot of reasons, but a critical element was unquestionably the forced nature of the siting process.

- If DOE had been required to obtain the state's informed consent to continue with the project, Yucca would have been disqualified years earlier (saving billions of dollars and years of effort) and DOE would have had to move on to identify a truly suitable location.

Congress shares a large portion of the blame for the failure of the federal high-level radioactive waste program to produce a repository.

- If politics had not intervened in 1986 and Congress had required DOE to implement the original Act as intended (and had not gutted the Act for political considerations in 1987), it is very possible that the country could have a working repository by now.¹

Part 2 – The Future

HOW can the federal government successfully site and build a deep geologic repository(s) in the future?

- *My observations are based on Nevada's experience with the failed Yucca Mountain project. Nothing in the remarks should be construed as suggesting in any way that the Yucca Mountain site can somehow be fixed or made acceptable to the State of Nevada.*
- In thirty years, no State has come forward and offered to host a HLW repository. There's a big risk that immediately makes the public skeptical from the onset, and, energizes the anti-nuclear groups around the country. States are currently suing to keep DOE from withdrawing their Yucca Mountain License, citing that *their* State might be considered if Yucca is cancelled. There may be a need for a cooling off period of 5 to 10 years to effectively recalibrate the effort..
- **The final decision must be voluntary** and must begin with a clean slate looking for the best sites science can find. Without the opportunity to say NO, a State will have a hard time engaging in any conversation. Sites should be thoroughly characterized first, prior to being selected. Do not allow any States to be politically carved out of the site search.

There must be credibility developed on the local, regional and State level.

- A full partnership must be created with the State, Tribe, County and the local entity. This means being a full partner with DOE (or whatever entity is identified to implement the effort) to develop a credible repository program. If safety concerns cannot be alleviated, then the State must have the final decision to opt out. Without this, no state will be willing to go down the road on a repository project.
- Once there is a commitment to a scientifically-based and truly voluntary siting process, the entity responsible for the program might then be able to build credibility by offering meaningful incentives for hosting a facility. This could include constructing nuclear energy research facilities near the site, preferably a national laboratory. As prestigious scientists and experts become part of the local fabric of a community, they build credibility with the public. But this can only work if the site is scientifically suitable and the participation of the host state is voluntary.

¹ During the election cycle of 1986, the Reagan Administration, responding to political pressure from eastern states that had potential sites being examined for a second repository, directed DOE to suspend the second repository program (an important component in the Act to insure regional equity). In 1987, powerful states with potential first repository sites (esp. Louisiana, Texas and Washington) successfully managed to gut the carefully crafted selection process for the first repository, get their states off the hook and single out Nevada's Yucca Mountain based on political considerations [i.e., Nevada's political weakness vs. the clout of Senate Energy Committee Chairman J. Bennett Johnston (LA), House Speaker Jim Wright (TX) and House Majority Leader Tom Foley (WA)].

There must be compensation

- A State must also be financially compensated for hosting a repository and the amount of compensation must be substantial enough for a state to consider it a true incentive.
- A State cannot be required to give up its rights to ensure safety and provide appropriate oversight in exchange for incentives. Incentives must be substantial enough (likely in the billions of dollars) to compensate the state for the service it would be providing to the nation, and for the risk. Funds and the other substantial inducements must be set up contractually so they are not at the mercy of future national politics.

A repository cannot be a federal project. It must be a COMMUNITY PROJECT, run by a federal or private entity, joined equally with its State, Tribe, County and local partners.

A successful repository project can be achieved, but only if it's an open process fully involving the state, region and local communities. It's a risk/reward venture that everyone must share in developing.