

**Summary Remarks by John Gervers, Consultant,  
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While good science and technical proficiency are the keys to successful development of a nuclear waste disposal system, the siting of a nuclear waste facility depends equally on public confidence in the safety of the facility and the competence of the managing agency. Technical expertise cannot substitute for lack of public confidence. Both are essential components of a nuclear waste disposal system, and require equal attention from policy-makers, planners and implementers of such a system. The key lesson to be learned from the Nevada experience is that public acceptance of a siting process is an essential ingredient for success of any nuclear waste storage or disposal system.

Too often scientists and engineers believe that the only real challenge of a disposal system is to meet an acceptable standard of safety through a competent assessment of the containment capabilities of a site. They often overlook, or dismiss as irrational, the concerns of people who live and work near the site and along the transportation routes, and sometimes attribute objections to a lack of knowledge and understanding of complex technical processes. The responses of citizens and the local and state governments that represent them are, however, quite rational and deserve consideration from implementers of nuclear waste disposal systems.

Citizens are not alone in their concerns about radiation risks. Insurance companies consider the risks of radiation releases to be unacceptable and consistently decline to cover nuclear risks. The private capital market is also unwilling to make reactor construction loans without federal government guarantees of their investments.

Failure to acknowledge community concerns can lead to political resistance and public demonstrations. To accommodate these concerns, the Nuclear Waste Policy Act authorized the creation of Affected Units of Local Government (AULGs) and empowered them to monitor the siting process, identify potential impacts, comment on siting activities, and conduct public outreach. The involvement of AULGs in the repository siting process has had a dampening effect on public protests aimed at Yucca Mountain.

Nonetheless, there has been consistent opposition from over 70 percent of the Nevada population and from all leading state officials because of the history of DOE involvement in the State of Nevada, the source of the waste, the potential impacts on the local economy, and the manner in which both DOE and the U.S. Congress managed the repository program. Nevadans have noted that DOE safety assurances about above ground nuclear bomb testing proved to be false, and the legacy of environmental contamination at defense sites has left doubts about DOE management capabilities. DOE's changes in the siting guidelines and the radiation release standards have undermined confidence in the integrity of the siting process. Nevadans also saw a regional disconnect between the benefits of nuclear power (in the Eastern U.S.) and the costs of accepting long term disposal risks (in Nevada). Clark County in particular considered the economic risks to the tourism industry from incidents involving nuclear waste transportation or disposal to be unacceptable. Finally, the Congressional decision to select Yucca Mountain on political grounds rather than technical merit solidified Nevadan's opposition to the repository.

The DOE response to this opposition has been to deny or minimize the risks of nuclear waste disposal and to attribute people's fears to misinformation or ignorance of technical processes. DOE largely adopted an attitude of "We know best because we have the technical expertise". With one significant exception, during the tenure of Ward Sproat as director of the nuclear waste

program from 2006-2008, the Department has consistently withheld support and respect for the oversight activities of state and local governments in Nevada. Nevada's opposition to the repository has too often been seen at DOE as willful obstruction without sound basis in fact, with the consequence that few efforts have been made to listen to local concerns or to remediate them.

Among other actions, DOE recommended a zero budget for AULG oversight activities, tried unsuccessfully to withhold appropriated funds, required annual work plans and denied approval of activities deemed "inappropriate", initiated audits of expenditures made under previously approved work plans, failed to pass through funds during Continuing Resolutions in Congress, and sought legislation to preempt state and local regulatory authority. Much of this improved under Ward Sproat's leadership, earning the respect and cooperation of AULGs.

The United States Congress also vacillated in its commitment to "consultation and cooperation" with local communities. The Nuclear Waste Policy Acts of 1982 and 1987 acknowledged the critical role of state and local governments in the siting process, but many subsequent congressional bills sought (mostly unsuccessfully) to preempt or constrain the role of affected governments. Appropriators zero funded the oversight programs in FY1996 and 1997 and created a lengthy list of prohibitions and provisos governing the use of the funds.

## **Recommendations**

We ask the Commission to consider the following recommendations to enhance the siting process for future nuclear waste systems:

- That DOE be replaced by an agency that is not deeply rooted in the values and attitudes of the former Atomic Energy Commission;
- That the mission of the implementing agency be defined in both technical and institutional terms, with equal attention to resolving the scientific and engineering challenges and to addressing public concerns about the proposed facility;
- That affected governments be seen as parties to the siting decision with legitimate interests in the siting process.
- That safety be the guiding principle of the implementing agency, and that siting guidelines be developed in concert with stakeholders and adhered to by the agency, even to the extent of abandoning a site if it cannot meet those guidelines;
- That future siting efforts be guided by the principle of risk and reward, with clear benefits accruing to communities that are prepared to accept the risks of long term storage or disposal.
- That adequate funding be consistently provided to affected governments to undertake independent oversight responsibilities on behalf of their citizens, including identification of potential impacts from the facility, review of the implementing agencies plans, programs and documents, and public outreach to citizens.
- That attention be given to the experience of other countries, where initial efforts to impose a site on local communities met resistance and had to be revised to include full engagement with a new set of communities (e.g. Canada, France, Germany, Sweden ,United Kingdom)