Debate Over Storage Locations for Nuclear Waste May Be Advanced by New Mexico Experience, Study Finds

Siting centralized nuclear storage facilities often draws intense opposition, but in New Mexico, a 25-year review process eventually led to public acceptance, offering support for nuclear energy advocates at a sensitive time.

Washington D.C. – Plans for a nuclear waste repository in southern New Mexico were initially opposed in the late 1980s by a 2-1 margin but a new analysis of 35 statewide public opinion surveys taken over a decade shows that public acceptance steadily grew as Federal agencies went through the policy development and approval process over a 25-year-span. “By the time the facility opened in March of 1999, a majority of New Mexicans supported its continued operation,” according to the research.

Lead author Hank Jenkins-Smith says the Japanese earthquake, tsunami, and related nuclear leaks at power facilities where spent nuclear fuel is stored have rekindled policy debates about siting centralized repositories for spent nuclear fuel. “The events in Japan have raised awareness of the problem of storing nuclear fuel onsite at reactors. Careful policy design of government review, approval, and public involvement processes as we have seen in the New Mexico case provides some cause for optimism for siting centralized repositories.”

The authors found that the extended regulatory process for the Waste Isolation Pilot Project (WIPP) in New Mexico—which only accepts military waste—involves multiple agencies, community input, and independent scientific reviews that served to build support for the facility. “Attention to the lengthy and often contentious regulatory process involved in licensing the facility served to increase public confidence and acceptance,” according to the research, which was funded in part by the University of New Mexico.

The analysis, entitled “Reversing Nuclear Opposition: Evolving Public Acceptance of a Permanent Nuclear Waste Disposal Facility,” appears in the April issue of the journal “Risk Analysis” published by the Society for Risk Analysis. In addition to Hank C. Jenkins-Smith, the authors include Carol Silva, Matthew Nowlin, and Grant deLozier, all with the Center for Applied Social Research at the University of Oklahoma in Norman, Oklahoma.
Regulatory review processes may have implications for other national efforts to identify locations suitable for building nuclear storage facilities. “Analysis of the quarter-century long process that led to the licensing and operation of the WIPP nuclear waste repository has important practical implications for future efforts for nuclear repository siting. Initially subject to opposition by a large majority of the public, and dogged by persistent charges of secrecy and reckless imposition of dire risks on the public, support for WIPP nevertheless grew gradually but substantially over time,” according to the article.

The researchers were surprised to discover that some of the strongest support was found among those living near the route where the nuclear waste is shipped. Jenkins-Smith says government officials reached out to firemen, police officers, and other emergency responders along the transport route and provided key training and technical assistance that built community confidence and support. “Proximity to the nuclear waste transport route—widely expected to be the Achilles Heel of nuclear waste disposal—came to be a positive factor in assuaging concerns and garnering support.” Public acceptance actually surged when the shipments began in March of 1999, the study found.

Political ideology was a strong factor in shaping risk perceptions about nuclear transportation and shipping routes. To measure political ideology, the researchers used a seven-point scale on which respondents self-identified as strong liberals to strong conservatives. Conservatives favored the site and liberals, particularly in the Albuquerque and Santa Fe area, opposed it. This factor was three times more important than the next variable in determining the perceived risk of waste transportation to WIPP, according to one of the analyses performed in the study.

Jenkins-Smith says one key to New Mexico’s successful experience was ensuring that host communities have a stake in the process that goes beyond a financial reward or jobs. “For the Carlsbad, New Mexico community that hosts WIPP, the waste came from the Los Alamos Laboratories which are also in New Mexico. The community felt it was their duty to accept some of the nation’s military waste for patriotic reasons and because the state benefits from the presence of Los Alamos within its borders,” according to Jenkins-Smith.

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