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Joan Claybrook, President

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Contact: (202) 454-5130

## **Nuclear Security and the Proposed Yucca Mountain High-level Waste Dump: Debunking the Myths**

Following the tragic events of September 11, 2001, some long-time supporters of the proposed nuclear waste dump at Yucca Mountain have tried to claim that the project is necessary in order to protect against the new terrorist threat. They say that Yucca Mountain is the most secure location to store the nation's high-level nuclear waste.

Yucca Mountain, located about 80 miles northwest of Las Vegas, Nevada, is the only site being considered as a potential repository for 77,000 tons of high-level radioactive waste from DOE weapons sites and commercial nuclear power plants across the country. Despite numerous unresolved technical, environmental and policy issues, the pro-nuclear Bush administration appears committed to pursuing the project, and Energy Secretary Abraham is expected to formally recommend the Yucca Mountain site in early 2002. However, the proposal faces an uncertain future in Congress.

The inherent safety risks of nuclear power and the dangers of nuclear waste are indeed concerning. But in seeking solutions, it's important to separate myth from reality.

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*Myth: The proposed repository would consolidate U.S. nuclear waste in one location.*

**Fact:** Freshly irradiated nuclear fuel is thermally and radioactively too hot to handle and must be stored on site in a "cooling pool" for at least five years before it can be transported. This means that, even if a repository opens, there will be at least five years worth of nuclear waste (100 – 150 tons) stored on site at each operating reactor.

Furthermore, the proposed Yucca Mountain repository could not contain all the waste that U.S. nuclear reactors will generate in their licensed lifetimes. Repository capacity is capped at 77,000 tons, with 10% designated for DOE defense waste, whereas the current fleet of commercial reactors alone will generate a projected 88,000 tons of waste. Nuclear industry proposals to extend the operating lifetimes of existing reactors

and construct new ones would result in yet more waste in excess of the proposed repository's capacity.

*Myth: The proposed repository would be a more secure site.*

**Fact:** More waste would be stored above ground at Yucca Mountain than at any nuclear power plant. This would introduce new nuclear threats to the State of Nevada, which currently does not generate nuclear power or store high-level nuclear waste. Repository design proposals feature massive, exposed surface facilities, which would establish a larger, highly vulnerable and potentially more devastating target for attack nearby the major population center of Las Vegas.

*Myth: Storing nuclear waste at a repository would reduce the number of people exposed to its risks.*

**Fact:** Not only would the proposed repository introduce new nuclear risks to the residents of Nevada, transporting high-level radioactive waste to Yucca Mountain would threaten the health and safety of people all across the country. Terrorist experts agree that moving targets are difficult to defend. Furthermore, transporting nuclear waste is inherently dangerous because it elevates the risk of release and disperses this risk to areas where emergency response personnel may lack the capacity to effectively respond to a radiation incident.

Routing projections indicate that Yucca Mountain shipments could pass through as many as 45 states, within half a mile of 50 million Americans. A severe transportation accident or terrorist attack could have catastrophic environmental and health consequences and result in billions of dollars in damages.

*Myth: The proposed repository would resolve security concerns at nuclear power plants.*

**Fact:** The tragic events of September 11, 2001, have raised serious concerns about safety and security at U.S. nuclear facilities. Many cannot even meet the current security requirements widely considered to be inadequate: nearly half have failed to repel small groups of intruders on foot in "force-on-force" exercises conducted by the Nuclear Regulatory Commission. Additionally, the Nuclear Regulatory Commission has recognized that the containment buildings housing nuclear reactors are not designed to withstand an attack of the scale witnessed at the World Trade Center in New York and the Pentagon. As long as nuclear power plants continue to operate, they will be vulnerable. The proposed nuclear waste repository at Yucca Mountain would do little to address these risks while introducing many others.

Ralph Nader, Founder

1600 20th Street NW • Washington, DC 20009-1001 • (202) 588-1000 • [www.citizen.org](http://www.citizen.org)