

Yucca'tta Be Kidding Me

Given serious concerns about the projected effects of global climate change, many people advocate for expansions of nuclear energy, which contributes significantly less to greenhouse gas emissions than existing energy sources in coal and natural gas. Hailed by some as the “energy of the future” in terms of sustainability, nuclear energy currently accounts for 10% of the world’s energy production.¹

However, nuclear energy is not without its costs. Most significantly, serious questions remain about what to do with nuclear waste, which is not only highly radioactive (and thus potentially dangerous) but remains so for thousands of years. To meet this challenge, the Yucca Mountain Nuclear Waste Repository project was established in the 1980s. This project created a secure underground storage site built inside the mountain. It is located in the Nevada desert, about 100 miles away from the city of Las Vegas.

The Nuclear Waste Repository, which was originally established with a \$15 million budget, has a current capacity for 70,000 tons of nuclear waste. Despite this significant capacity, the Yucca Mountain Nuclear Waste Repository is currently empty and shuttered. The project was stalled in 2010 after resistance from various stakeholders in Nevada and around the country.²

Opponents to the Yucca Mountain project have cited environmental concerns, such as the catastrophic possibility of nuclear material entering the water supply.³ Additionally, Nevadans complain that their state, which is home to no nuclear power plants itself, should not be asked to serve as a dumping ground for waste product from all of the other states. Finally, some critics object to the projected \$96 billion cost of completing the site’s intended construction.

Supporters of the Repository argue that the project was canceled for political rather than technical or scientific reasons.⁴ They argue that Yucca Mountain was highly researched and selected strategically, as being the best place to store high-level radioactive waste safely. They also contend that using the Yucca Mountain facility is much better than leaving the waste in temporary storage spaces across the country, a current practice which is both less secure and unsustainable over the longer term.

Currently, 79,000 tons of nuclear waste in the US await long-term storage, exceeding the current capacity of the Yucca Mountain facility.

DISCUSSION QUESTIONS

1. What are the risks and benefits of nuclear power? Do the benefits of shifting towards nuclear energy outweigh the costs? Why or why not?
2. How should government actors balance the need for safe, long-term storage of nuclear waste, with the potential risks to specific communities that a particular storage site would bring?
3. How much of a say should the people of Nevada have regarding the establishment of a national nuclear repository in their state?

¹ <https://world-nuclear.org/information-library/current-and-future-generation/world-energy-needs-and-nuclear-power.aspx>

² <https://www.hcn.org/articles/is-yucca-mountain-back-from-the-dead>

³ <https://www.kunr.org/energy-and-environment/2020-07-12/yucca-mountain-faster-water-flow-undermines-project-safety-unr-geologist-says>

⁴ <https://archive.nytimes.com/www.nytimes.com/gwire/2011/05/10/10greenwire-gao-death-of-yucca-mountain-caused-by-politica-36298.html>

