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Some Congressional Rep's -- carrying bags of money from the nuclear industry -- want to resurrect the cancelled Yucca Mountain dump project for high-level radioactive waste, 90 miles from Las Vegas. I've presented Yucca's shortcomings before, but Congress needs a refresher and the Nuclear Regulatory Commission is taking public comments on Yucca's Draft Supplemental EIS until Nov. 20.

The 1982 Nuclear Waste Policy Act set strict licensing standards that must be met for such a site. Yucca Mt.'s geology repeatedly failed to meet these legal requirements, so the specs were repeatedly weakened. In 2010, the Obama Administration killed the project, because it could not be defended on scientific grounds. The list of reasons to disqualify Yucca is long, and it helps explain the White House action.

EPA standards would allow radiation releases from the site to cause up to 1,000 cancer deaths over 10,000 years. Whether or not this "license to kill" limit could ever be met or enforced is a matter of unresolved scientific dispute. That assumes no earthquake impacts and [Nevada is the third-most seismically active](#) US state.

In 2014, former Nuclear Regulatory Commission (NRC) chair [Allison Macfarlane](#) warned that there were "more than 300 'contentions' challenging the [license] application." Each of these roadblocks must still be overcome before licensing.

In 2007, the [Bow Ridge earthquake fault](#) was found to be well east of where scientists had estimated. This blunder was announced by the chief of the US Geological Survey's Yucca Mt. Project Branch and its discovery means designers must entirely remake their plans. The fault passes directly under a site where thousands of tons of waste would be kept for decades while it cools -- before being entombed inside the mountain. Five years earlier, a 4.4 magnitude earthquake struck 12 miles from Yucca Mt. an omen of potentially catastrophic damage to the above-ground storage facilities. US Rep. Shelley Berkley said, "If anyone ever wondered about the wisdom of locating an underground radioactive dump site on an active fault line, this shows why." In 1998, the site was found to be 10 times more prone to earthquakes or lava flows than earlier estimated.

Proof that the mountain is periodically flooded came in 1999, in the form of zircon crystals found deep inside. "Crystals do not form without complete immersion in water," said [Jerry Szymanski](#), formerly the DOE's top geologist at Yucca. "Hot underground water has invaded the mountain and might again in the time when radioactive waste would still be extremely dangerous. The results would be catastrophic." This finding was disregarded by the DOE.

In 1997, DOE researchers announced that rain water had seeped 800 feet into the repository from the top of Yucca Mountain in a mere 40 years. The DOE had claimed that it would take hundreds or thousands of years. The 1982 federal guidelines require that the existence of fast-flowing water would disqualify the site, which was eyed for yet another 13 years.

In 1995, Charles Bowman and Francesco Venneri at the Los Alamos National Laboratory warned that the waste might explode, spreading thousands of tons of radioactive materials to the groundwater or the winds, or both. The physicists said staggering dangers would arise thousands of years from now—after steel waste containers dissolve. DOE geologist Jerry Szymanski said, “You’re talking about an unimaginable catastrophe.”

DOE scientists have admitted that waste canisters will corrode away long before the radiation hazards do so. Much of the 70,000 tons of waste slated for a dump [“remains radioactive for millions of years”](#) and “would be hazardous for millions of years.” Because of the time scale, “testing of the whole project is impossible,” according to Dr. R. Darryl Banks, a biophysicist at World Resources Institute, because it “would require a time machine.”

The National Research Council said in 1990 that the DOE’s Yucca Mt. plan is “bound to fail,” because the law demands a level of safety that science cannot guarantee.

In 1999, the DOE admitted that leaving the waste in storage at reactor sites is as safe as moving it to Yucca, as long as it’s repackaged every 100 years. Given Yucca’s unsuitability and the enormous risks of moving this most radioactive of wastes, better to store it where it’s produced for now. There are good alternatives to the faulty, shaky Yucca Mt. sieve. Storing the waste at reactor sites will give the experts time to consider them.

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