

A Waste of Energy – Yucca Mountain hangs in nuclear limbo.

Commentary

Opinion Journal
July 20, 2006

As you can see, Yucca Mountain isn't really a mountain," says our guide as we near the end of an hour-long bus ride, about 100 miles north from Las Vegas. "Those of you who know geology will recognize it's only a ridge."

The Department of Energy gives monthly tours these days, anxious to prove--after almost 25 years--it still intends to open its Nuclear Waste Repository at Yucca Mountain someday. The trip, however, feels like an expedition into hostile territory. The whole state of Nevada is on the warpath over the project.

"See those buildings off on the left there," says our guide as we pass through the sagebrush. "They're brothels. As you may know, prostitution is legal in certain Nevada counties. The state has no trouble supplying them with water, but for almost a year they wouldn't give us any. We used port-o-potties for quite a long time." As it turns out, though, the brothels have their upside. Anticipating a surge in business from the construction project, they are among the few locals supporting the project.

Right now the Yucca Mountain Repository consists of one five-mile long tunnel dug into the side of the mountain/ridge. In 1994, a locomotive-like device with a 25-foot drill face started burrowing about 185 feet a day. After a mile into the mountain it turned left for three miles, then left again, re-emerging only five feet from its target. A video at the visitors' gallery shows the whirling snout breaking through the cliff face like a diver returning to the surface, as staff members in hardhats stood and cheered. That was 1997. Nothing much has happened since.

The whole project is now tied down in environmental impact statements. The Environmental Protection Agency set a standard that radiation from the site should not exceed 15 millirems a year (about one chest x-ray) for 10,000 years. Environmentalists screamed that wasn't enough. They wanted a million years. A federal court, of course, agreed. So the EPA set a standard of 350 millirems for the next million years (about two-thirds of what people in Denver get from natural sources) and environmentalists are screaming that isn't good enough either. Nobody has suggested how these standards are to be monitored.

Naturally, in trying to make such preposterous forecasts, somebody winged some numbers somewhere and that's what made it into the papers. Now the press and politicians are playing "the government lied to us."

So the bad news is that it's going to be a long, long time--if ever--before Yucca Mountain is completed. If a license is issued, there are seven more years of construction ahead, then another round of federal permits. Meanwhile, Entergy, the country's second-leading operator of nuclear plants, has collected a multimillion-dollar settlement against DOE for failing to take the spent fuel off its hands by 1998, as promised by the Energy Policy Act of 1982. Others will surely follow.

The good news is that all this probably doesn't make much difference. Nuclear power is about to undergo a resurgence in this country--with or without Yucca Mountain.

In the first place, the whole idea that there is such a thing as "nuclear waste" is a bit of a misconception. More than 98% of the material in a spent nuclear fuel rod is being recycled in other parts of the world. About 97% of spent fuel is uranium: 2% is fissionable U-235 isotope, the fuel that powers the reactor and the other 95% is good old U-238, the same non-fissionable isotope that comes out of the ground. It can't be used for bombs. Sure, it has a half-life of four billion years (that's why environmentalists think they have to sit and watch it for a million years) but this is the same stuff that's in granite.

No, the isotope everybody really worries about is plutonium-239, which is formed when small amounts of U-238 absorb neutrons during the three-year cycle. It makes up 1% of spent fuel. Separating it and putting it back in a reactor as "mixed oxide fuel" (uranium plus plutonium) is no problem.

Unfortunately, back in 1976, Jimmy Carter decided that if we extracted the plutonium, somebody might run off with it and make a bomb. Therefore he cancelled fuel recycling. That created the problem of "nuclear waste." France recycles all its fuel rods and has never had any plutonium stolen. As for the remaining 2% of the fuel rod--the highly radioactive transuranic elements and fission byproducts--it is all stored in a single room in Le Havre.

The real waste problem in this country is the 10 million tons of carbon dioxide we throw into the atmosphere every day from coal-fired electric boilers. That constitutes almost 15% of the world's carbon dioxide garbage, which environmentalists warn us is causing global warming. It's ironic that these same people are also opposing the only technology that could conceivably replace those coal plants.

No, it's more than ironic--it's dishonest. In "An Inconvenient Truth," Al Gore lifts the "seven-wedge" approach to global warming from Robert Socolow, director of the Carbon Mitigation Initiative at Princeton. Mr. Socolow's main "wedges" are efficiency, conservation, fuel switching, renewables, carbon sequestration, reforestation--and "nuclear fission." Mr. Gore conveniently leaves nuclear out.

Even as Yucca submerges slowly beneath a raft of environmental impact statements, alternatives are emerging. Some utilities are using "dry cask storage," simple upright concrete containers surrounded by a barbed-wire fence. "Dry storage is safe on the order of 50 to 100 years," says Allison Macfarlane, co-editor of "Uncertainty Underground," an anthology on the Yucca situation. "Geological repositories are the ultimate solution but there's no need to rush into one right now." The 221-member Goshute Tribe has signed a \$1 million contract to accept nuclear material on its reservation in Utah. A group of Wyoming businessmen want to do the same thing at Owl Creek.

As half a dozen utilities prepare to submit applications for new reactors to the Nuclear Regulatory Commission, perhaps the best role for DOE's effort will be to serve as a distraction. While environmentalists continue their war dance around Yucca Mountain, a revived nuclear industry will be solving their global warming problem for them.