Over twenty years ago, the Supreme Court accepted the Nuclear Regulatory Agency's assurances that it would find a safe method for long-term disposal of nuclear waste. Consequently, the NRC was allowed to assign a zero to the risk of any radioactive discharge. As it turns out, this was an empty promise. The solution that the government settled on was permanent underground storage at Yucca Mountain. Many years of planning and litigation and many billions of dollars later, the government is giving up on Yucca Mountain, with no other other solution in sight.

Greenwire (subscription only) today reminds us of just what a mess this has turned out to be:

> From the top of this brown, loaf-shaped ridge about 90 miles northwest of Las Vegas, there is little sign that this 5,000-foot desert outcropping remains a major battleground in U.S. energy and climate policy.
>
> Twenty-five years of government work and research has been sunk into the parched, sandy soil here, along with at least $9 billion of taxpayers' money spent to carry out Congress' 1987 law requiring that this be the final repository for the nation's nuclear wastes. The goal was to have it up and running in 1998.
>
> Eleven years after that, there is little that is up, and almost nothing is running. Instead, Yucca Mountain has been placed in what the Department of Energy calls "cold standby." Congress cut almost $100 million from its $386 million budget this year, forcing DOE to lay off 500 of its 1,400 workers.

There are some lessons from this debacle:

1. A more credible process is needed to plan for nuclear waste disposal. The public does not trust the NRC, and pretending that genuine risks are zero is not the way to gain that trust.

2. Courts should not allow an agency to say a risk is zero based only on an agency's pious hopes that a solution can be found.

3. In fact, the risk is not zero. It may be hubris to think we can devise a method of ensuring that disposal will be safe for the hundreds of thousands of years that it will take for the plutonium in the waste to become harmless. And there is also probably no way to make fuel recycling (the alternative to permanent disposal) foolproof

against the risks of terrorist diversion or accidental leaks. We need to devise the best possible (but not ideal) solution available at present, with some flexibility for later generations to improve on our work.

4. Since the risk of a radioactive release is *not* zero, we should be more realistic in deciding upon the future of the nuclear industr, rather than just assuming that the waste problem will be "solved." *It won't be solved, it will only be managed.*