

# As Nuclear Waste Languishes, Expense to U.S. Rises



A tunnel at the Yucca Mountain nuclear waste site in Nevada. It is not expected to open for at least a decade, say officials

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WASHINGTON — Forgotten but not gone, the waste from more than 100 nuclear reactors that the federal government was supposed to start accepting for burial 10 years ago is still at the reactor sites, at least 20 years behind schedule. But it is making itself felt in the [federal budget](#).



Each circle entombs a nuclear waste canister near Aiken, S.C.

With court orders and settlements, the federal government has already paid the utilities \$342 million, but is virtually certain to pay a total of at least \$7 billion in the next few years and probably over \$11 billion, government officials said. The industry said the total could reach \$35 billion.

The payments come from an obscure and poorly understood government account that requires no new Congressional appropriations, and will balloon in

size, experts said.

The payments are due because the reactor owners were all required to sign contracts with the Energy Department in the early 1980s, with the government promising to dispose of the waste for a fee of a 10th of a cent per kilowatt-hour. It was supposed to begin taking away the fuel in the then far-off year of 1998.

Since then, the utilities have filed 60 lawsuits. The main argument — employing legions of lawyers on both sides — is when the government would have picked up the fuel if it had adhered to the original commitment, and thus how much of the storage expense would have fallen on the utilities anyway.

But the damage number is rising. If the repository that the government is trying to develop at Yucca Mountain, near Las Vegas, could start accepting waste at the date now officially projected, in 2017, the damages would run about \$7 billion, according to Edward F. Sproat III, director of the Office of Civilian Radioactive Waste Management.

But that date is actually “clearly out the window,” Mr. Sproat said in a conference call with reporters, because Congress underfinanced the effort to build the repository, among other problems, he said. Mr. Sproat said the goal of applying by this June for a license to build Yucca could no longer be met.

If the repository opens in 2020, the damages would come to about \$11 billion, he said, and for each year beyond that, about \$500 million more. The industry says the total could reach \$35 billion.

“The rate-payer has paid for it,” said Michael Bauser, the associate general counsel of the Nuclear Energy Institute, the industry’s trade group. “The Department of Energy hasn’t done it, and now the taxpayer is paying for it a second time.”

Initially, the Energy Department tried to pay the damages out of the Nuclear Waste Fund, the money collected from the nuclear utilities, plus interest, which comes to about \$30 billion. But other utilities sued, saying that if the government did that, there might not be enough money left for the intended purpose, building a repository. So the government now pays the damages out of general revenues.

The damages are large relative to the annual budget of the Energy Department, which is about \$25 billion. But the money comes out of the Treasury,

not the Energy Department. Under a law passed in the Carter administration, such payments are recognized as obligations of the federal government and no further action by Congress is required to make them.

The money comes out of a federal account called the Judgment Fund, which is used to pay settlements and court-ordered payments. For the last five years, the fund has made payments in the range of \$700 million to \$1 billion, with the average payment being \$80,000 to \$150,000. In contrast, payments to utilities have been in the tens of millions.

The government is also running up extra expenses on its own wastes. Some of the waste that is supposed to go to Yucca, left over from nuclear weapons production, is sitting in storage that is expensive to maintain.

Some extra expense was assured, because Yucca has been beset with legal and managerial problems, and it is not clear whether the geology is suitable for the goal, storing the waste for a million years with only very small radiation doses for people beyond the site boundary. The interim solution is storing wastes in steel casks, pumped full of inert gas to prevent corrosion, an arrangement that will keep the wastes isolated for decades at least.

At some point, the escalating costs slow down, because some of the expenses for dry storage are incurred only once, like the engineering work, or installation of a crane to get the cask in and out of the spent fuel pool, officials said. But costs rise again at the point where the reactor that generated the fuel becomes too old to run, and is torn down; at that point, the entire expense of the guard force and the maintenance workers are attributable to the waste.

That has already happened in California, Connecticut, Maine, Massachusetts and Michigan. Jay Silberg, a lawyer who represents some of the utilities, said some companies that had sold reactors were suing the government and maintaining that they could have gotten a higher price if their plants had not come with the waste attached.

Each reactor typically creates about 20 tons of waste a year, which is approximately two new casks, at roughly \$1 million each. If a repository or interim site opened, clearing the backlog would take decades, experts say. At present, waste is in

temporary storage at 122 sites in 39 states.

The Energy Department has launched an initiative to gather the waste and run it through a factory to recover re-usable components, which would allow centralized storage, but that program's prospects are highly uncertain.

The government has spent \$11 billion on Yucca Mountain, Mr. Sproat said. The project has dragged on so long that some of the research data is stored on obsolete computers that must be replaced, program officials said.