

Nuclear Waste: Another Washington Scandal

by Don Hancock

"I believe that you have acted beyond the law....Is it your position that you are above the law?" — Senator Albert Gore Jr. (D-Tennessee), January 29, 1987

"We want you to get on with following the law. What you've proposed is a very neat effort, but it is not up to the struggle we had and we are not going to let you go on with it." — Senator Pete Domenici (R-New Mexico), January 29, 1987

The recent bipartisan criticism of the Reagan administration quoted above was not aimed at the Iran-*contra* scandal, but rather at another, less publicized scandal that affects the health and safety and pocketbooks of millions of citizens — the administration's high-level nuclear waste disposal program.

Decisions by Department of Energy (DOE) Secretary John Herrington and President Reagan regarding the siting of nuclear waste facilities have outraged millions of people and many members of Congress. The DOE program that on May 28, 1986, Secretary Herrington said had "taken a significant step forward" was in such disarray just eight months later that the same secretary asked, "Are we doing the right thing?" and admitted that the goal of having a disposal facility in operation in 1998 would not be met.¹

As with other scandals, questions abound: What happened? Why did it happen? Was the law wrong or was the implementation wrong? What can be done?

This article will briefly examine those questions² in light of precedents set by another, little-known DOE nuclear waste project — New Mexico's Waste Isolation Pilot Plant, or WIPP — and will outline what can be done to develop a program to protect present and future generations from the dangers of radioactive waste.

WHAT HAPPENED?

Although the federal government had long sought a permanent solution to the nuclear waste problem (see

box), in 1982 Congress declared that "federal efforts during the past 30 years to devise a permanent solution to the problems of civilian radioactive waste disposal have not been adequate."³ In that year Congress passed the Nuclear Waste Policy Act (NWPA) to establish the framework for a new DOE waste program which was to be scientifically sound, publicly acceptable, and adequately financed by users of nuclear power.

Despite the new law, many aspects of the DOE program have not changed. Most important, DOE has chosen the same sites for the world's first high-level nuclear waste repository that it had chosen before the law was passed,⁴ and each one has significant, potentially catastrophic technical flaws. The program continues to be based on political expediency, not technical excellence.

But some things have changed. More than 30 lawsuits have been filed challenging the DOE program; thirteen states, one Indian tribe, four national environmental groups, and ten citizen organizations are in court against DOE. In October 1986, for the first time ever, Congress substantially cut funding for the DOE waste program. In the November 1986 elections, citizen opposition to the DOE program helped decide the U.S. Senate races in Washington and Nevada. Congressman Morris Udall (D-Arizona), considered the "father of the NWPA" and just six months ago totally opposed to budget cuts in the waste program, now supports major budget cuts and questions whether the program should continue: "I really wonder whether the fair thing isn't to go back to square one."⁵

Congressional concern about the waste program has grown as a result of the work of involved citizens and affected states and Indian tribes, who have been challenging the waste program since 1983.⁶

On May 28, 1986, in response to the enormous opposition of people in states across the nation — Washington, Nevada, Texas, Utah, Mississippi, and Louisiana for the first repository, and Minnesota, Wisconsin, Maine, New Hampshire, Virginia, North Carolina, and Georgia for a second one — DOE reduced

Brief History of Nuclear Waste Disposal Program

June 17, 1970 — Atomic Energy Commission (AEC) tentatively selects salt mine site near Lyons, Kansas to demonstrate "long-term storage."

June 1981 — AEC final Environmental Statement on Lyons site calls for waste emplacement beginning in 1975.

1972 — Lyons site abandoned because of opposition and technical problems. AEC begins investigations of Michigan, Ohio, and New York salt beds.

1975 — Field work begins at WIPP site in southeastern New Mexico.

1978-1979 — Carter administration Interagency Review Group recommends major changes in nuclear waste management.

December 19, 1979 — Congress passes WIPP authorization bill.

February 12, 1980 — President Carter announces nuclear waste management policy and cancellation of WIPP.

January 22, 1981 — Reagan administration announces that it will proceed to construct WIPP

December 20, 1982 — Congress passes Nuclear Waste Policy Act.

December 19, 1984 — Department of Energy (DOE) releases draft environmental assessments (EAs) for nine potentially acceptable first-round repository sites.

January 16, 1986 — DOE announces that 20 sites in seven states are under consideration for a second repository.

May 28, 1986 — DOE releases five first-round final EAs, chooses three sites to be characterized, and postpones second-round program.

October 17, 1986 — Congress passes continuing resolution that cuts DOE waste program budget and prohibits shaft sinking at first-round sites.

January 28, 1987 — DOE releases its *Draft Mission Plan Amendment*.

the number of states under consideration to three. DOE officials felt that the entire waste program would collapse if the broad-based, nationwide opposition continued.⁷

DOE's decisions of May 28 made obvious what citizens, states, and tribes had been saying for years — DOE's program was based on political expediency, not on technical merit or the NWPAs requirements. On that date, DOE announced, among other things, that the Washington, Nevada, and Texas sites would be subjected to extensive surface and underground site characterization activities — a decision which President Reagan approved without receiving any information from anyone other than DOE. Also, in a surprise move, DOE announced the "indefinite postponement" of all work in the second-round states.⁸

Dropping the second-round states was intended to give DOE "immediate political relief" and to help the fall election chances of Republicans in several eastern states (a strategy that did not succeed in North Carolina, where James Broyhill lost the Senate race to Terry Sanford), but westerners, including Republicans concerned about losing control of the Senate, strongly criticized DOE's decision as political and clearly contrary to the NWPAs requirement that DOE nominate sites for *two* repositories.¹⁰ In October, after a major congressional battle, the appropriation for the waste program was cut to \$420 million from the \$769 million DOE had requested, and the agency was prohibited from sinking shafts at the three first-round sites or beginning work on

its proposed above-ground monitored retrievable storage (MRS) facility in Tennessee.¹¹

Although its impact was greatly reduced in the second-round states, the nuclear waste issue was a major factor in the elections of Democrats Brock Adams in Washington and Harry Reid in Nevada. In a referendum in the same election, more than 82 percent of Washington's voters said yes to a proposal urging state officials to use all means necessary to oppose the siting of a waste repository.

DOE apparently hoped that with election-year politics over, it could move ahead with the waste program. But the agency found out otherwise when on January 28, 1987, it released its *Draft Mission Plan Amendment*,¹² which at a Senate hearing the next day elicited the responses quoted at the beginning of this article. In the document DOE tried to justify its continued postponement of the second repository, finally admitted that the first repository would not open until 2003, and proposed that Congress approve the MRS so that it could accept wastes by 1998.

Less than two weeks after the initial critical reaction to the plan, Secretary Herrington abruptly reversed his position and told Congress that DOE would resume the second-round program if the amendment was not approved or if the proposed 1988 budget of \$725 million was significantly changed. Once again, DOE showed that it was more willing to change its program in response to political pressures than to follow the requirements of the NWPAs or develop a technically adequate program.

WHY DID IT HAPPEN? (And What's WIPP Got to Do with It?)

DOE's handling of high-level nuclear waste follows precedents set in its handling of another waste project that is totally separate from the NWPA — the Waste Isolation Pilot Plant (WIPP) in southeastern New Mexico. Thus, a look at WIPP helps explain the current DOE program.

WIPP's creation resulted from the federal government's mishandling of its own nuclear wastes at its Rocky Flats plant near Denver, Colorado. Rocky Flats produces warheads for the nation's nuclear weapons. In the late 1960s, after fires resulting in releases of radioactivity led to increased public concern about nuclear materials at the site, the Atomic Energy Commission (AEC), DOE's predecessor agency, began moving transuranic (mostly plutonium-contaminated) waste to the Idaho National Engineering Laboratory near Idaho Falls. While not objecting to short-term storage of the waste, Idaho politicians extracted a promise that it would be removed from Idaho by 1980.

That promise provided the impetus for the first search, in the 1970s, for a nuclear waste repository — a search that began in Kansas, moved to Michigan, Ohio, and New York, and finally ended in southeastern New Mexico when the governors of the other states prohibited any AEC waste work in their jurisdictions.¹³ The need for a repository gained further urgency in 1976 when California passed laws prohibiting construction of new nuclear power plants until the technology to dispose of nuclear wastes could be demonstrated.¹⁴

WIPP was authorized by Congress in 1979 and is under construction in a salt formation 2,150 feet below the surface as a "research and development facility to demonstrate the safe disposal of [military] radioactive wastes."¹⁵ Despite promises by the DOE secretary in 1978 that WIPP would be subject to veto by New Mexico and that it would face technical review and licensing by the Nuclear Regulatory Commission (NRC), the law when passed explicitly exempted WIPP from NRC licensing and required only that the DOE secretary "consult and cooperate...with respect to the public health and safety concerns of such State."

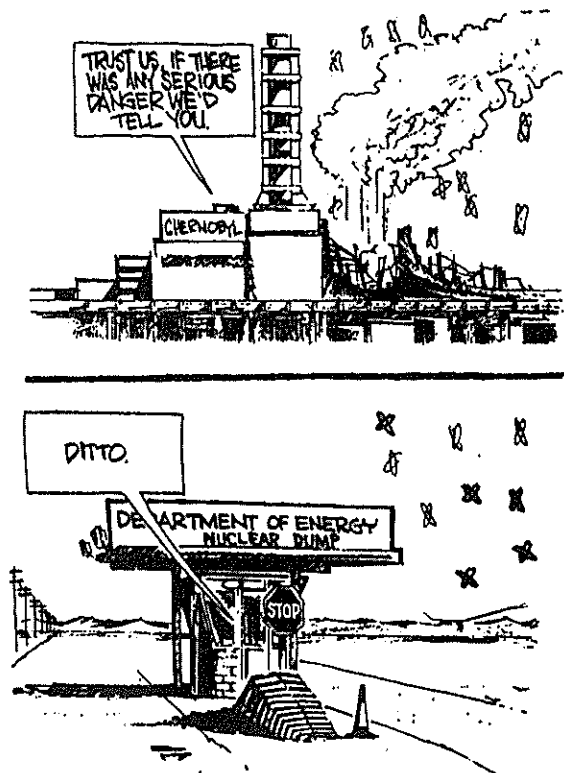
Construction has been underway at WIPP since 1981, despite legal challenges and major technical problems with the site, and DOE hopes to open the facility to waste shipments in October 1988. Lawsuits have been filed by the state of New Mexico and citizen groups, and, according to all polls, the majority of the state's population opposes the project. WIPP's technical problems include a large amount of pressurized brine in the salt formation that could carry wastes to the surface or into aquifers; the presence of natural gas reserves, which makes future drilling at the site likely; the

inability of the rock above the salt strata to prevent water carrying radioactive waste from flowing rapidly into ground water and the Pecos River; the closing of the underground tunnels at a rate three times faster than predicted, causing rocks to crack, which creates dangerous work conditions and makes it uncertain whether waste could be retrieved in the future, should that be necessary.

The entire need and purpose of WIPP should be reevaluated before Congress authorizes its operation and turns the site over to DOE. Rather than serve as an unsafe site for waste storage and disposal, WIPP could serve as a full-scale test facility.

The WIPP experience shows several characteristics of DOE's mind-set. (1) DOE will make decisions with no technical (or legal) justification in order to "pacify" political opposition. (2) DOE will make promises it cannot and will not keep. (3) Once DOE selects a site, the decision will not change no matter how serious the technical problems. (4) DOE will use "the law" as justification for anything it wants to do.

The same characteristics are readily apparent in the current DOE high-level waste program. The May 28, 1986, decisions were intended to reduce political opposition and to help Republican candidates. DOE's promise to suspend second-round site selection was one that it could not keep without a change in the law (as even DOE's own lawyer acknowledged¹⁶), and some nine months later, DOE said it would not keep the promise.



As early as 1982 DOE decided to sink shafts at the Hanford site, and it has persistently clung to that decision even though its own site-ranking methodology places Hanford fifth on a list of five for suitability as a repository site.¹⁷ And while DOE officials continually say that they are only carrying out the law, the numerous lawsuits and much of the congressional criticism of the waste program come from the strong belief that DOE is not complying with many of the NWPA's requirements.

In a situation in which DOE does not have a sound technical basis for its work, will not follow legal requirements but instead depends on shifting political winds to make major program decisions, and acknowledges that it is not looking for the best possible site for a repository,¹⁸ only disarray can be expected.



IS IT THE LAW (POLICY) OR JUST DOE'S IMPLEMENTATION THAT IS FLAWED?

To end the current disarray and move toward a technically sound, publicly acceptable waste program, DOE's mismanagement must be acknowledged and the NWPA itself must be evaluated. If the law has fundamental flaws, it must be changed before a successful waste program can be implemented.

Despite its many good features, including the strong role for states and tribes that is unprecedented in law, adequate funding provided by the users of nuclear power, and a step-wise approach to site selection, there are flaws in the NWPA, not limited to leaving DOE in charge of the program.

Flaws include the following.

(1) The scheduled deadlines for various stages of repository selection have not been set far enough in the future to allow time for the resolution of technical uncertainties and a thorough development of reliable scientific data.

(2) While the NWPA recognizes geologic disposal as the permanent solution to the waste problem, it also allows DOE to propose development of the MRS as a long-term surface storage facility. This somewhat contradictory policy creates confusion — if underground repositories are the solution, why pour millions of dollars into other facilities? If long-term surface storage is safe, why not install above-ground facilities at reactor sites, obviating all need to transport dangerous wastes?

(3) The Act lists some qualifying and disqualifying factors for site selection but does not clearly disqualify national parks and forests, tribal lands, and sites having major water supplies. The law also ignores problems of acquiring private land, including the economic damage from declining property values, the psychological trauma for residents, and the extraordinarily long time required to select sites.

(4) The Act pays too little attention to waste transportation, which would affect millions of people, especially since strong local and state laws governing transportation are currently preempted by weaker federal law.

(5) The Act is silent about the nation's policy on waste production. Yet many citizens affected by the DOE waste program believe that it is irresponsible to continue producing wastes when no means of permanent disposal is available.

Various proposals to correct those flaws, which have been advanced by members of Congress, state officials, and others¹⁹ seem to add to the confusion and disarray. But there are some important things that can be done to develop and implement a sound policy.

WHAT CAN BE DONE ABOUT THE WASTE PROGRAM?

(1) The current DOE program must be halted — to prevent any further deterioration in public confidence, to



stop the waste of millions of dollars, and to prohibit further work at sites that have clear technical problems and uncertainties. Specifically, Congress should further slash funds for the program and prohibit *any* work at first- or second-round sites and on the MRS.

(2) Congress should authorize and fund an independent commission to review the NWPA and DOE's implementation of the waste program and to recommend necessary changes to Congress. The commission should have a sufficient life (perhaps three to four years), adequate technical expertise, and the advice of numerous affected groups to develop recommendations that have broad support.

(3) Adequate funds should be provided to develop alternative on-site storage technologies to ensure that wastes at existing sites can be safely managed until permanent disposal is possible. For reactors in highly populated areas or where catastrophic accidents are possible (for example, facilities on earthquake faults or major rivers), safe means of moving the waste to other locations (probably other reactor sites) should be developed.

(4) Waste transportation, to WIPP and other sites, must meet stringent requirements. DOE designed and built the WIPP TRUPACT I transportation container with full knowledge that it would *not* meet all existing regulatory requirements. Now DOE has asked the Department of Transportation to change the rules²⁰ so that the container may be used to transport wastes to WIPP, passing through more than 20 states. Citizens, states,



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tribes, and members of Congress should ask that the new rules be withdrawn and that container standards be made more stringent.²¹

CONCLUSION

A permanent solution for nuclear waste disposal is much more difficult than Congress believed when it passed the NWPA in 1982. But rather than allowing DOE to proceed with its unsound program — which would ultimately waste billions of dollars — affected people, the nuclear industry, and government officials must work together to develop and implement a program that will at long last solve the waste problem.

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NOTES

¹*The Energy Daily*, January 30, 1987, p. 2.

²For more detailed information, see *The Workbook*, Vol. VIII, Nos. 4 & 5; Vol. XI, No. 2; and Vol. XI, No. 4.

³Public Law 97-425, Section 111(a)(3), 42 USC 10131.

⁴U.S. Department of Energy, *National Plan for Siting High-Level Radioactive Waste Repositories and Environmental Assessment*, (Public Draft), DOE/NWTS-4, DOE/EA-151, February 1982, pp. 112-113.

⁵*Inside Energy*, February 2, 1987.

⁶Especially at public hearings in first-round states in 1985 on draft environmental assessments and second-round states in 1986 on the Draft Area Recommendation Report, thousands of people criticized DOE for not having technically adequate information and discredited the site selection methods.

⁷For example, Secretary Herrington told an Atomic Industrial Forum/American Nuclear Society meeting that "the decision [to drop the second round] probably saved the program and kept the first repository on track." *The Energy Daily*, November 18, 1986, p. 4.

⁸Statement by John S. Herrington, May 28, 1986, p. 1.

⁹From May 13, 1986, internal DOE memoranda, released as a result of an investigation by Rep. Edward Markey.

¹⁰Public Law 97-425, Section 112(a)(1)(c), 42 USC 10132.

¹¹Public Law 99-500.

¹²U.S. Department of Energy, *Draft Mission Plan Amendment*, DOE/RW-0128, January 1987.

¹³Office of Nuclear Waste Isolation, *Environmental Characterization of Bedded Salt Formations and Overlying Areas of the Salina Basin*, ONWI-16, September 1979, p. iii. Jackie L. Braitman, *Nuclear Waste Disposal: Can Government Cope?* Rand Graduate Institute, P-6942-RGI, December 1983, pp. 105-111.

¹⁴Cal. Pub. Res. Code Sec. 25524 — additions to the Warren-Alquist Act, which was enacted in 1974.

¹⁵Public Law 96-164, Section 213(a), 93 STAT 1265. When the law passed, it was not one of Congress's finest hours, since the bill that was sent to the floor by the House Armed Services Committee contained *no* authorization and *no* money for WIPP. Without prior notice, committee Chairman

Melvin Price (D-Illinois) proposed the amendment to authorize WIPP, and it passed without opportunity for debate.

¹⁶Memorandum of September 5, 1986, from J. Michael Farrell (general counsel), to Benard Rusche.

¹⁷U.S. Department of Energy, *Recommendation by the Secretary of Energy of Candidate Sites for Site-Characterization for the First Repository-Waste Facility*, May 1986, DOE/IS-0048, p. 6.

¹⁸DOE has made this statement many times, including as recently as February 1987 to Rep. Olympia Snow (R-Maine). See *Portland (Maine) Evening Express*, February 18, 1987.

¹⁹For example, Washington Gov. Booth Gardner has proposed a "mid-course correction," and science writer Luther Carter has proposed that regardless of the other issues, Nevada should take the wastes and be handsomely rewarded financially.

²⁰DOE Petition for rulemaking to the Department of Transportation, dated February 27, 1987.

²¹See, for example, Marvin Resnikoff, *The Next Nuclear Gamble*, New York: Council on Economic Priorities, 1983.