



# Nuclear Weapons Waste: Dealing With The Military's Mess

by Glenn Barlow

When the United States government institutionalized the mass production of plutonium, it got more than it bargained for. Tiny microgram particles of plutonium can produce cancers and death in exposed humans — it and certain other radioactive wastes must be kept out of human environments for periods ranging from one thousand to one million years. This is a problem that no government has ever faced before.

Today, more than 40 years after the birth of the atomic age, the nuclear-industrial complex has found no reasonable solution to the problem of storing nuclear wastes. Dumping in the oceans is still an active proposal, although temporarily on hold.

From 1946 until 1972, the military and its nuclear weapons labs at the University of California at Berkeley and Livermore routinely dumped radioactive wastes into the ocean. More than 50 dumpsites in the Atlantic and Pacific Oceans were used by the military and its contractors, the most famous of these being the Farallon Islands, a few miles off the coast of San Francisco.

Today, the U.S. Navy operates 150 nuclear reactors on submarines and other naval vessels. The wastes from these reactors is currently shipped to Idaho from the

waste handling docks near Seattle and San Francisco (Mare Island). The Navy has always maintained the right to routinely dump radioactive liquids at sea and in harbors, but it also hopes to ultimately dump its retired nuclear reactors into the ocean off the West Coast.

The bulk of radioactive wastes from

## Hanford

The military site with the most nuclear waste stored there is Hanford, Washington. Nine military reactors were built there on the banks of the Columbia River. Routine dumping and leaks have made the Columbia the most radioactive river in the world. Seafood at the mouth of the river near

---

*... at one point it discovered that so much plutonium had been dumped into one trench that it had created a potential critical mass capable of triggering a nuclear explosion.*

---

nuclear military programs are currently being held in long-term storage at three sites in South Carolina, Washington, and Idaho where dozens of military reactors were built in the 1940s and '50s.

The process that makes these sites so messy is plutonium reprocessing. Nuclear reactors transform uranium into plutonium, the main ingredient of nuclear bombs. Removing the bomb stuff from the spent fuel is a tricky procedure that results in enormous quantities of reprocessing wastes.

Portland contains radiation. Massive leaks have plagued the aging tanks that store over 70 million gallons of high-level wastes at Hanford. These wastes are so hot that they boil spontaneously and continuously. The tanks they are in were meant to be replaced by now, but efforts to remove the hot wastes have been unsuccessful.

Hanford used to dump a lot of wastes into ditches in the ground. Inventories were not always kept, but at one point it was discovered that so much plutonium had been dumped into one trench that it

had created a potential critical mass capable of triggering a nuclear explosion. The plutonium had to be removed.

From 1946 until 1965, Hanford was operated by the General Electric Company. During that time, more than 2000 pounds of plutonium were unaccounted for. GE claims it was emitted through the smokestacks and had stuck to various chunks of reprocessing wastes.

Between 1947 and 1963 GE built six nuclear reactors and a huge complex of plutonium reprocessing laboratories at Hanford. The reactors at Hanford are similar to the Soviet Chernobyl reactor in that they do not have protective shields to trap radioactive releases before they enter the air. Under routine conditions, radioactive wastes are simply diluted with air and vented into the downwind environment.

## Idaho Falls and Savannah River

The Navy ships its nuclear wastes by truck and train to Idaho Falls on the Snake River, home to 50 military reactors used to test operators and parts for 150 naval reactors at sea. Serious accidents have occurred there, including a reactor explosion that spread radiation over several states.

The Savannah River site, on the border of Georgia and South Carolina, was chosen



in the fifties for military reprocessing of plutonium and tritium. Many leaks and spills and routine emissions have contaminated the nearby cities and coastal resorts. The soil, which ranges from swampy to moist, transports radiation rapidly.

All three military sites are currently storing antique reactors and millions of gallons of intensely radioactive reprocessing wastes. They are all built on top of enormous aquifers that supply drinking water and all use the nearby rivers for reactor cooling water.

### More Military Nuclear Wastes

Many contractors with the Department of Energy nuclear weapons program produce nuclear wastes, beginning with the mining of the uranium. Mountains of radioactive dust from mine tailings sit near Salt Lake City and on Indian reservations. Indian mine workers have experienced lung cancers from the radon gas emitted from the tailings and the drinking water supply for Southern California was contaminated by a big spill of this stuff in the early 1980s.

Uranium enrichment plants in Kentucky and Ohio prepare the fuel for all reactors. The fuel rods are constructed at the Kerr-McGee Company of Oklahoma, where a major accident occurred in 1986.

Transportation of all these parts of the fuel cycle involves many more contractors. There are nuclear weapons contractors routinely emitting and dumping radioactive wastes near Tampa, Cincinnati, Denver, Los Angeles, San Francisco, Santa Fe, and Amarillo, Texas.

Rocky Flats, near Denver, is the DOE's largest producer of nuclear wastes. This Rockwell-International facility, which produces the plutonium triggers for bombs, has had so many accidental leaks and spills that Denver's suburbs and some reservoirs are permanently contaminated with radiation. At one time, wastes including plutonium were stored in barrels in an empty field during harsh winters. The rusted barrels leaked their wastes into the topsoil. The DOE's solution was to pave the area, long after the leaks began.

Similar solutions, among others, have been applied at the nuclear weapons labs in Los Alamos and Livermore. Besides dumping wastes into prime fishing sites near San Francisco, the Livermore labs have leaked plutonium, tritium and other wastes into the water system that supplies San Jose and the Silicon Valley. That drinking water passes through a reservoir and an open-air aqueduct located just across the street from the Livermore lab. San Francisco's water is also aerated nearby in Sunol. The labs formerly evaporated plutonium wastes outdoors to reduce the volume until high levels of wastes were discovered in the topsoil near the South Bay Aqueduct.

In spite of these questionable practices of handling nuclear waste, the public has consistently been told there is no danger. Yet radiation is still hidden behind national security secrets. After 40 years of the nuclear arms race, we find ourselves no closer to a solution of what to do with the waste. Even when arms control finally ends the nuclear arms race, there will remain the silent bomb — the legacy of military nuclear waste scattered across the nation.

Glen Barlow is a staff writer of The Monthly Planet.





## A Self-fulfilling Prophecy?

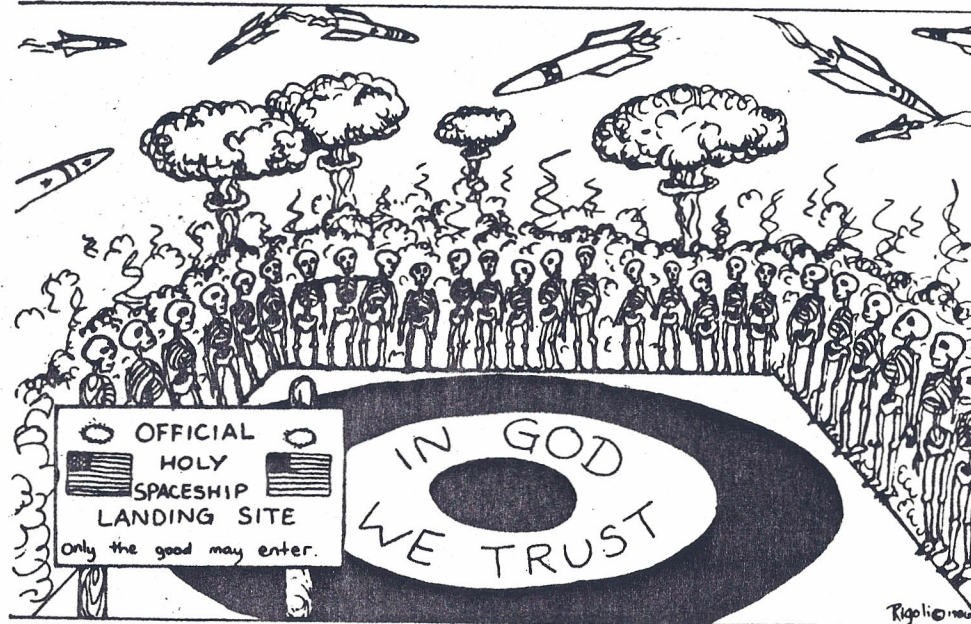
# The Politics Of Armageddon

by Glenn Barlow

On September 17, 1986, TV evangelist Pat Robertson announced that he will seek the 1988 Republican nomination for president if three million of his followers signed petitions in support of his campaign. President of the Christian Broadcasting Network, he hosts a daily program that goes out to 4.4 million homes. His supporters say that 40 million evangelical Christians in the United States share their views. Robertson's friend Jerry Falwell, head of the Liberty Federation, formerly known as the Moral Majority, broadcasts his weekly program over 400 TV and 500 radio stations. Falwell said that he had registered eight million new Republicans in the 1984 campaign.

Now that the ultraconservatives of the New Christian Right are on the ascendant in an attempt to dominate American politics, we need to take a fresh look at the beliefs of this "army that meets on Sunday."

Pat Robertson and Jerry Falwell are good friends of President Ronald Reagan. What they have in common is that they are "born-again fundamentalists" who believe that the end of the world is coming soon in a "Final Holy War" that will destroy everyone on the planet except for those born again like themselves. They believe they will be taken off the earth for seven years while the rest of humanity burns in the fires of a nuclear war. This "punishment by fire," as they call it, is



DIANE RIGOLI

inevitable because it is God's will according to their interpretation of certain passages from *The Bible*.

Their ideological doctrines are not shared by Catholic, Jewish, or mainstream Protestant theologians. In fact, the Catholic Bishops of America have declared it a sin for any Catholic to work on the production or use of nuclear weapons. They state that to possess, use, or threaten to use nuclear weapons is immoral.

On the other hand, the fundamentalist

Protestants insist that nuclear war is inevitable as God's punishment for humanity's sins. They assure one another that they will be spared the terrors of radiation by a divine dispensation known as "The Rapture." The New Christian Right is dominated by these nuclear dispensationalists.

Several members of Congress have helped to create the New Right, and their fundraisers promise to bankroll election campaigns that may result in their having more power in Congress in 1986 and 1988. The

current born-again Congresspersons include eight members of the House and six senators (Hatch, Helms, Humphrey, Jepsen, Laxalt, and Simms).

Reagan has become the first president to give nuclear war a religious respectability in our cultural mythologies. Prior to both the 1980 and 1984 elections, Reagan often made references to Armageddon, a "Final Holy War" between God's chosen nation and an Evil Empire. Reagan said, "We may be the generation that sees Armageddon," and "There have been many times in the past when we thought the end of the world was coming, but never anything like this... We're heading very fast for the Armageddon right now." Reagan's Pentagon chief Caspar Weinberger has also said, "Yes, I believe the world is going to end, and every day I think that time is running out."

Reagan believes *The Bible* predicts that the Holy War will begin when the atheistic Soviets and their Moslem allies invade Israel and are destroyed by nuclear fires. Reagan has said, "Most of the prophecies that had to be fulfilled before Armageddon can come have come to pass. Ezekial said that fire and brimstone will be rained upon the enemies. That must mean that they'll be destroyed by nuclear weapons." Thus, Reagan seems to have had a religious agenda behind his two trillion dollar military buildup that included the building of 17,000 new nuclear weapons. Those weapons were



built for the destruction of the Evil Empire.

One would think that peace in the Middle East would not be served by aggression against Moslem nations. Yet, Reagan condoned the Israeli invasion and occupation of Lebanon. American weapons were used against Soviet weapons as Israelis battled Syrians. Perhaps Reagan had a secret agenda in mind when he ordered the bombing of Libya and when he threatened to punish Syria if it harbored any terrorists. Both Libya and Syria are Soviet allies.

Where is all this leading us? Would Reagan, Weinberger, or Pat Robertson become confused during international political crises and act on their conviction that

Christ."

Many American voters seem to believe a lot of this. One recent poll found that four out of 10 Americans believe that Bible predictions that the earth will be destroyed by fire means that nuclear war is inevitable. Perhaps that is the key to Reagan's two victories at the polls. Religious mythology has become so interwoven with anti-communism that Americans are electing leaders who are prepared to push the button that would destroy "God's enemies": the communists, and all those sinners who are not born again. If that's the case, then voters must feel that they are either among the chosen few who will be saved or among

---

### ***Reagan has become the first president to give nuclear war a religious respectability in our cultural mythologies.***

---

they are fulfilling Biblical prophecies? Will their belief that the world will end soon in nuclear "fire and brimstone" become a self-fulfilling prophecy? Why are Reagan and Falwell against any end to the arms race and against the peace movement, which they say is communist inspired? Maybe the answer can be found with the born again minister who Reagan chose to have open the 1984 Republican convention in Dallas, James Robinson, who has said, "Any teaching of peace prior to his [Jesus'] return is heresy. It is against the word of God — it is Anti-

those who deserve to die in a nuclear war. Perhaps that is the basis for the skyrocketing increases in alcoholism, drug abuse, apathy, and divorce in America. If the world is going to end soon anyway, why bother believing in a future that will probably never come?

Glenn Barlow is a staff writer of *The Monthly Planet*

