

radioactive waste  
campaign

# sierra club Waste Paper

Spring 1986

## NEWS UPDATE: MAY 28

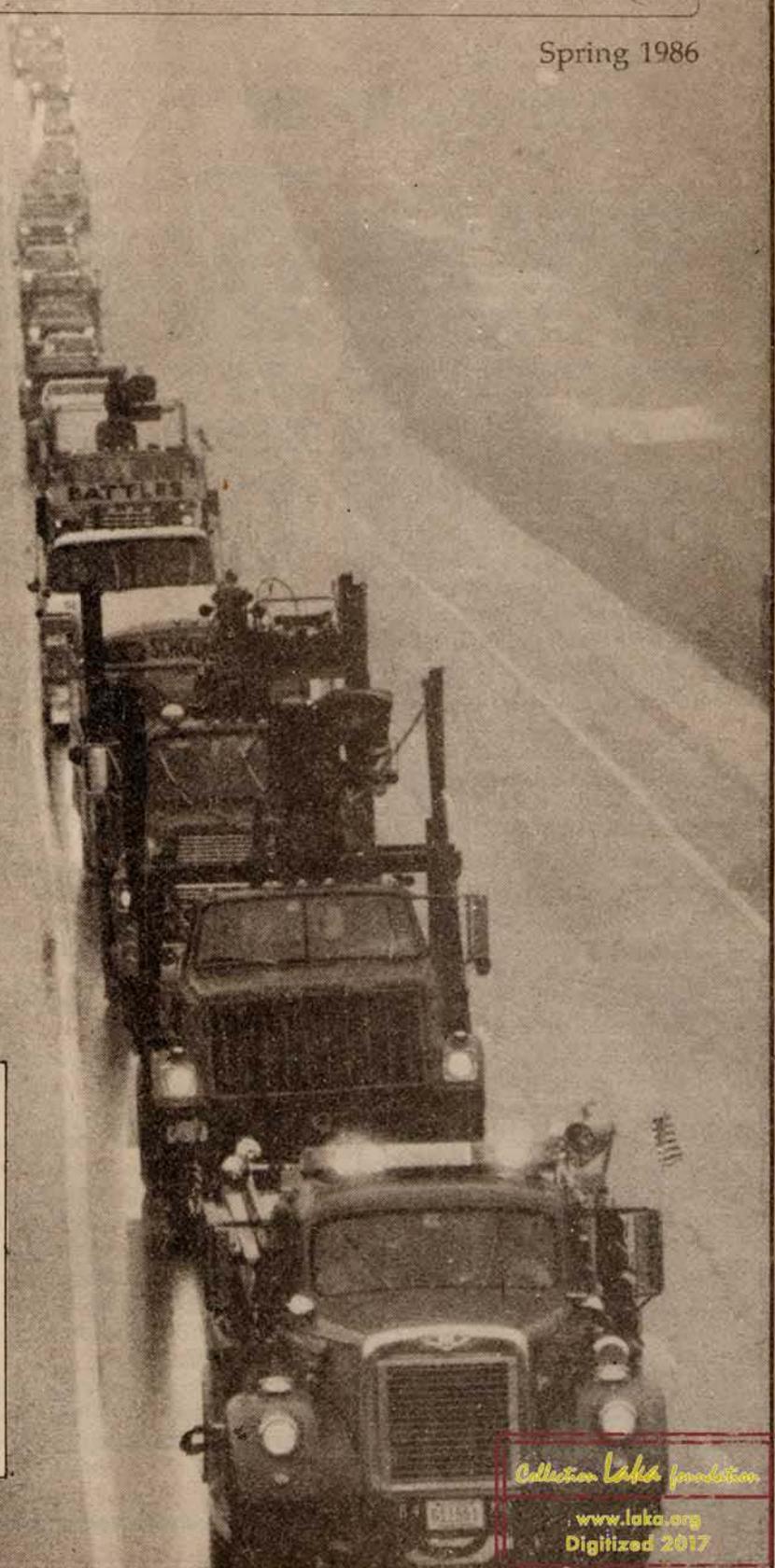
The DOE is indefinitely postponing its search for an eastern repository, and named sites in Texas, Nevada, and Washington for the nation's first high-level waste dump. For nuclear waste actions across the country, turn to page 10.

*ABOVE: Nuclear waste protest takes to the highway in New Hampshire.*

*Photo by Keene Sentinel*

*Collection Lake Foundation*

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## Editorial

# "I Have a Dream"

By Mina Hamilton

*This editorial is dedicated to Martin Luther King who delivered his "I have a dream" speech in 1963 at the Washington monument in Washington, D.C.*

I have a dream.

That no one takes the meltdown of the reactor at Chernobyl as an excuse to heat up the cold war by launching tirades against the Soviet government for its lack of respect for human life. Yes, we agree that it was unconscionable for the Soviets to fail to notify promptly affected countries of the accident. Yes, the Soviets deserve to be severely criticized for any withholding of information during this international tragedy. But before we wax too wroth, does any country which has tested nuclear weapons in the atmosphere, spewing radioactive debris across the fragile planet, have superiority in the realm of sharing information or respecting life?

I have a dream.

That the employee at Brookhaven National Laboratory who on CBS television on Tuesday, April 29 stated there was only a small amount of radioactivity inside a nuclear reactor core publicly recants and tells the truth: there are millions of curies of radioactivity inside a nuclear reactor—one reactor at Chernobyl contains the radiological equivalent of 100 Hiroshima bombs.

That all the employees of U.S. Department of Energy, the Nuclear Regulatory Commission, the Atomic Industrial Forum, members of Congress, staff at Westinghouse, General Electric and Bechtel, that anyone who has ever lied about nuclear power anywhere, anytime, steps forward and recants publicly.

I have a dream.

That television commentators be-

come rigorously impeccable in their presentation of the facts regarding nuclear accidents and do not allow experts to coddle the American public with false assurances. Why was an expert from Harvard University, interviewed on the MacNeil/Lehrer program after the accident allowed to get away with the statement that because of the containment vessels present in U.S. reactors in the event of a major accident none of the radioactivity inside the core would be released to the environment? This statement gives a false assurance. A containment vessel provides some time for evacuation of workers and surrounding populations, but, in the event of a meltdown, the molten fuel will eat through any containment structure.

I have a dream.

That the U.S. government demonstrates as much concern for the victims of the 66 U.S. atmospheric tests conducted in the Marshall Islands in the South Pacific between 1946 and 1958, as it is currently manifesting towards the victims in the Ukraine.

That no one, right or left, experienced a sigh of relief when the radioactive cloud turned away from Europe and headed in the direction of the 'enemy,' Russia.

That worldwide there is a renaissance in the sentiment of compassion. That anarchists, capitalists, conservatives, centrists, socialists, and communists, that people of all political complexions, alike grieve for those who have died, for those given sentences of leukemia, bone marrow cancer and birth defects in future years and future decades, for those faced with the economic and psychological hardship of contaminated farm land, ruined homesteads and forced relocations, for those confronting permanent, awesome uncertainties—will the Kiev water supply ever again be "safe" to drink?

I have a dream.

That the President of the U.S. gives

an executive order to shut down, within three months, all nuclear power plants and all nuclear weapons facilities operating in the U.S. and an order to ban, immediately, any further export of nuclear technology. And that the President calls upon Congress to transfer the entire military budget (excluding pensions) to the implementation of a radical energy conservation program across the land with a crash program on conservation retrofits, co-generation facilities, recycling, electric cars, mass transit, methane gas production, solar, wind and small hydro plants, this implementation to include an intensive job retraining program for all employees affected by the dismantling of the military-industrial complex.

I have a dream.

That extreme nationalism goes out of style, that the definition of anybody as an 'enemy' ceases including both nuclear utility corporate executives maligned by anti-nukes or Russian communist 'devils' targeted in the press, that institutionalized state killing becomes as abhorrent as the concept of individual murder, that the bombing of an 18-month old baby anywhere, including Libya, is an occasion for national mourning.

I have a dream . . . that all life is sacred.

### QUOTE OF THE QUARTER

**"Stop me before I kill again!"**  
Sign on a head of lettuce presented as testimony by Maryanne Izzo-Morin at the DOE HLW hearing in Portland, Maine, March 25. A DOE official had said that Maine citizens were more likely to get cancer from lettuce in their salad than from a nuclear waste dump in the state.

*Mina Hamilton is former director of the Sierra Club Radioactive Waste Campaign, and on the Boards of both Greenpeace, USA, and the Campaign.*

## DoE Waste

# Now You See It, Now You Don't

By Marvin Resnikoff and Dana Coyle

What if criminals could write the law, make the arrests, and judge the court cases. Under that system, no one would break the law. There would be no criminals. Similarly, the Department of Energy sets its own regulations and enforces them. DOE rarely violates its own regulations. If it's having difficulty satisfying its regulations, it changes them. With the stroke of a pen, DOE has relaxed radioactive release standards, reduced the volumes of plutonium and high level waste requiring disposal, and defined away hazardous waste.

### Case 1. Alpha Radiation Standards Changed.

In analyzing gross alpha concentrations in water at the Feed Materials Production Center in Fernald, Ohio, Dana Coyle, staff research associate, noted a dramatic rise in levels in 1977 and earlier. Between the years 1978 and 1984, the alpha radiation levels in water released off-site hovered around 10 percent, never exceeding 55 percent. High as these were, they jumped to 100 percent in 1977. Alpha radiation is a helium nucleus emitted from a heavy radionuclide, such as uranium, which, when ingested, can cause cancer.

Dana wondered—was it an accidental release in 1977, or perhaps a mathematical error? None of the above. It was a case of changing standards. The newer standard for off-site releases was 30 picocuries per liter, compared to the older more stringent standard of 3 picocuries per liter.

How did the change in standards

come about? In 1977 and earlier, DOE used the Ohio EPA standard, 3 picocuries per liter. Under pressure from DOE, the state standard was changed in 1978 to 15 picocuries per liter, *excluding uranium*. DOE lept into the void with its own DOE Manual Chapter 0524 Standards, 30 picocuries per liter for uranium.

You might ask, what percentage of the old standards were surface waters at the FMPC site in 1984? 465 percent. But DOE was within the law, because the releases were only 46.5 percent of the new standards.

### Case 2. The Definition of Plutonium-Contaminated Waste Changes

By 1982, the problem of plutonium-contaminated soil at Hanford was enormous. The DOE facility had accrued 12 million cubic meters of plutonium-contaminated soil in seepage basins, that is, pouring waste directly into the ground. According to AEC Chapter 0511, this "technology" allows radionuclides to adhere to soil, with only clear liquid, primarily tritium, migrating to the site boundary. The tritium plume now extends six miles to the Columbia River. For comparison, the WIPP facility, the underground plutonium waste facility in New Mexico, will hold only 200,000 cubic meters of plutonium-contaminated waste from DOE facilities around the country. How to fit 12 million cubic meters of plutonium-contaminated soil into a New Mexico facility that holds 200,000 cubic meters? Change the definition of "plutonium-contaminated," of course.

DOE Order 5820.2, promulgated February 1984, changed the definition of plutonium-contaminated, from waste containing 10 nanocuries of plutonium per gram or more to 100 nanocuries per gram or more. With

the stroke of a pen, 12 million cubic meters of plutonium-contaminated soil became 9 million cubic meters of low-level waste not requiring underground disposal. In comparing figures for 1982 and 1984, the remaining

*continued on page 14*



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This article was researched by Dana Coyle, Campaign Research Associate, and written by Dr. Marvin Resnikoff, Campaign Staff Scientist.

# Interview with Cia Iselin Activist Extraordinaire

By Mina Hamilton

*Editor's Note*—With this issue the Waste Paper initiates a series of interviews with nuclear waste activists, this first with a member of the Steering Committee of the Sierra Club Radioactive Waste Campaign. These intrepid individuals meet four times a year for marathon two-day meetings in which policy for the campaign is set. In addition, members pile through reports, prepare memos, serve on subcommittees and when necessary, provide succor and aid to the overworked staff.

Cia Iselin, our New Hampshire representative, is an indefatigable, feisty soul with six children and 10 grandchildren. Forty years ago she realized the dangers of splitting the atom (upon hearing that the atom bomb had been dropped on Japan she commented, "this is the worst news I have ever heard") but the demands of a husband and family kept her otherwise engrossed until 1974 when she first joined the Sierra Club. Soon Cia was an intervenor in the case against the Seabrook Nuclear Power Plant. In the intervening 14 years, she has been a maelstrom of activity.

The interviewer is Mina Hamilton, former director of the Sierra Club Radioactive Waste Campaign, and member of the Boards of Greenpeace, USA, and the Campaign.

**Mina Hamilton:** When did you first hear about the Sierra Club Radioactive Waste Campaign?

**Cia Iselin:** It was at Critical Mass. You and Marvin proposed that we needed to focus on the issue of nuclear waste. We started getting the Waste Paper—as soon as there was one—and started distributing it to people in our community. It has been the only periodical that brings any real news about nuclear issues to the public. Of course, we get notices from the Nuclear Information and Research Service and some of the other Washington papers, but we always knew the Waste Paper would have something hot that we could copy off in our little newsletter.

**Mina:** Do you read the Waste Paper cover to cover?

**Cia:** (Laughing) Somehow I think I couldn't avoid it.

**Mina:** Do you have any idea how many hours a day you spend working on nuclear power and nuclear waste issues?

**Cia:** I'd say roughly, right now, while things are very much alive. I'm spending three-quarters of my time, aside from just personal time, sleeping and eating, on nuclear issues. I spend most of this time working as a volunteer for the New England Coalition on Nuclear Pollution, for ten years as its Education Chair. This requires keeping up with the issues and technology, consulting knowledgeable professionals, checking out audio/visual materials, and going all over New England and beyond to share results of this self-education with others. (*Editor's Note: New Hampshire is one of the states under consideration as a second repository state.*)

**Mina:** How are you spending that three-quarters of your time?

**Cia:** Of working time, I never know when I'm working and when I'm playing half the time because I like to do things I like to do, so it's hard to draw the lines.

**Mina:** How do you, in dealing with this topic on such an intensified, concentrated basis, avoid being depressed, discouraged, angry?

**Cia:** You know a lot of people certainly come up with that question. Because it is very frustrating to realize that there is no solution to this problem. I'll add one little word. Yet. Y-E-T. As I tell my children, having been born on April 10 it makes me the kind of fool who thinks you can always win. No matter how tough. So, in the end I can always come back to that point although it is very very difficult to carry the weight all the time and to wake up in the middle of the night, and say what if there is no

solution . . . ? We shouldn't have unbottled the genie in the first place, as Amory Lovins put it.

**Mina:** Do you have any particular thing you have recourse to in terms of rededicating yourself, restrengthening yourself?

**Cia:** Oh, sure, right next door, Alouette, my daughter-in-law. Her poetry and singing. I think music is the greatest experience in trying to deliver your self from one frustration after another.

**Mina:** Where do you stand spiritually? Some people have recourse to Native American philosophy. Belief in the Great Spirit. Do you have believe in the Great Spirit?

**Cia:** Well, I don't know whether I would call it the Great Spirit . . . I certainly have great beliefs that sustain me. I am part of everything which includes what ever is called God or the Great Spirit. It is one. And anything that anyone does affects everything.

I think the atomic problem is probably as tough a one we have stumbled into. We have been eating the big apple, biting off a little more knowledge than we could possibly digest. I would not say that there could never be a human race that



Photo by Marvin Resnikoff

could handle the question of nuclear power, but we can't in our present stage of underdevelopment. We are frightfully immature. We're like little kids who reach up, get some medicine and taste it to see what its like. And then if it tastes good we take too much, much too much . . . We have too much power. If we had the sense not to use it, if we could learn to abstain and think it over . . .

**Mina:** *I wondered are your six children active too, in terms of the anti-nuclear movement or have some of them said they're not going to be involved at all?*

**Cia:** There's nobody in my family who would dare tell me they're not interested at all, but most of them are in the same condition I was in between 1950 and 1970. Raising families just takes a lot of time, unless you're going to do a rum job. And they're very very busy, so they can't put enough time in it. But I told you Alouette, my daughter-in-law, who sings, and I've had two boys in jail, during the Seabrook days.

**Mina:** *They were arrested at Seabrook?*

**Cia:** Yes, on purpose. I like to think about the symbolism of it when one son went down to the 1977 occupation. Somebody came along and said, "What are you doing?" And he said, "I'm planting a garden. I expect to be here for a long time." (Laughter)

**Mina:** *What are your plans regarding the Great New England Energy Show this summer? (Editor's note: Cia has carried energy alternatives equipment and educational materials in the energy van (see photo) to meetings and schools throughout the Northeast.)*

**Cia:** I think it is time we link up with what is closest to home, the second repository sites, starting with the Northeast, moving to the Southeast, and then to the North Central States, where the 12 sites, plus 8 backups are located. Each and every one. Find out who the people are, how they're reacting to the threat . . . Tell them how we feel. And involve more people along the way. So, we're going to warm up this 1964 wonder, the energy van, and take it out on the road, on three itineraries. We'll have on board a maximum of three, a minimum of two, a staffer and a volunteer, and we'll pick up at each site if the hosts want to do so, a person



Photo by Marvin Resnikoff

who is a talented high school student or someone who has some entertainment ability. We'll be putting on a show from the Cardigan Pluton to Sebago. (Ed note: Cardigan Pluton is the proposed disposal area under Henniker, New Hampshire, and Sebago Lake is 25 miles north of Portland). We'll have all Sierra Club slide shows on board. We'll have documentary films on board. And we'll let our hosts at each of the sites that we visit select what they would like to do with our evening with them. We're going to make a slide show of this whole trip. We'll have a product at the end of it. And that product can be circulated widely and I think that this will just help to get the connection we all feel a need for right now of having all the states in the United States say, no. We're not going to go on a hurry DOE schedule that only considers the convenience of the industry and not human safety and health. The repository program really has to stop in its tracks.

**Mina:** *Are you going to go on the trip yourself?*

**Cia:** I'm going to be on every one I can go on.

**Mina:** *Now, you've done this before with the solar energy show.*

**Cia:** Well, the Great New England Energy Show was more positive than negative, although we carried plenty of literature. I never liked the term "anti-nuclear." We're opponents of

nuclear power, which doesn't sound so confrontational. We educated the public in the safe alternatives to nuclear power. We used to have windmills on board and wood stoves and models and photo voltaics and all manner of things. I think we're going to have less space for inventory and more space for people on this trip. Because we're concentrating on person to person communications, which can then become enlarged by becoming part of a slide show.

**Mina:** *Sounds like a wonderful trip. I definitely want to come. Can you tell me the titles of a few books you have read that have been particularly important to your thinking and feeling?*

**Cia:** Kahlil Gibran's *The Prophet*. It's a good bible. And 1984. Orwell makes you realize what the punishment is for eating a big bite of the apple. I certainly hope it never happens to us. Of course, Amory Lovins is a joy to read. All of his books I find important, starting with the first one, which is required reading, *Soft Energy Paths: The Road Not Taken*.

**Mina:** *OK, we've been working, battling this problem of nuclear power and nuclear waste, ten years, twelve years, and we've made some strides. Lost some battles as well. Do you think there is something different we need to do, that we haven't been doing in the past. Is there a change in direction that we need to take?*

**Cia:** We need to change from being

continued on page 6

## Cia Iselin/continued

confrontational, to letting people discover what we've already discovered, and not putting ourselves up on a pedestal just because we found out first. But to come out and let people find it out. We need to make use of tools that have been developed by the technology that fits in so well with nuclear power, the communications business. This allows us to have more networking between different groups, with different perspectives, without having us all join one giant colossus.

**Mina:** *When you raised the question of being less confrontational, does this mean developing a different attitude towards what we consider to be the enemy, so to speak?*

**Cia:** Yes, that's it really. We need not to look on people as the enemy at all, and find that we're all part of a whole. One thing nuclear power has taught us while considering the total destruction of nuclear war, warring is not a way of bringing things about. Some place in the middle there has to be that nice fine line. The delicate balance. We certainly have to have differences, but we can't express ourselves in violence without losing something.

**Mina:** *What do you love most in the world?*

**Cia:** Wow, I suppose my first reaction to that is kids, in general, the future, the beginnings. The children represent so much, so many things that I love.

### NEW WASTE PAPER COLUMNS

Beginning with the next issue, the *Waste Paper* will run an expanded quarterly "Calendar of Events." Please send us a list of upcoming events for September through December, by August 1. No event too large or too small.

Also, subject to the availability of hot items, we will be running a "Deep Throat" column. Send us your hot scoops crying out for public exposure. If the information is important and can be independently verified, we will publish it. Confidentiality will be strictly observed. Just put it in an unmarked envelope and slide it under the door.

## New Faces



Photo by Laura Haight

High school intern Stephanie Wallace and Research Associate Dana Coyle taking a break. Stephanie, who has been working at the Campaign since February wrote, "When I first arrived I thought I wouldn't like this too much. How excited can a person get over the subject of radioactive waste? . . . Being involved with the Campaign made me think of why I and so many other people feel the way I did when I first came here. The public is not interested in something they know nothing about. We must find a way to educate the public about this serious problem in a way that they will understand. Most people think that this subject is highly political. In some aspects it is, but we must also remember that this is a very human subject. It affects our lives a great deal. Just because you can't see something or hear it or smell it does not mean that it isn't there. If we don't do something about it now we will see it. We'll see it in our children and in our grandchildren when they are born distorted and deformed."

# Longshoremen Support Halt to Taiwan Nuke Shipments

By Roman Brice

An agreement between the Department of Energy (DOE) and the Northwest Inland Water Coalition has halted all shipments of irradiated fuel into Seattle, Washington. The agreement was reached after the coalition withdrew a court request to temporarily stop the DOE shipments. The agreement will remain in effect till August 31 and prevents transport of irradiated fuel through the ports of Long Beach and Oakland, California and Seattle, Washington.

Workers of Local 19, International Longshoremen and Warehouseworkers Union, unanimously opposed work on shipments carrying irradiated fuel. The union is a member of the Coalition.

According to Alex Baroumes, Secretary Treasurer of Local 19, the decision to refuse work on incoming ships carrying irradiated fuel was based on a lack of clear-cut answers from DOE on safety to workers and the community. He said inquiries to the DOE were met with "mountains of misinformation and a lack of relevant information."

As part of the court action, the coalition has asked for detailed answers to the risk factors associated with handling the radioactive material and an environmental impact statement on the risks to the Seattle community.

Rather than relieving fears of the coalition and the community, the DOE responses have caused more alarm than assurance, Baroumes said. "The answers they gave were only relevant to a fixed facility, and not relevant to our working environment. They've deferred all jurisdiction of emergency situations to the local authorities such as the fire department and Coast Guard. Their answers leave a lot to be desired."

DOE provided no information on

which hospitals, if any, are equipped to handle workers contaminated by a major leak on the loading site. Baroumes said this was another example of DOE insensitivity. He said the response of the union was not a predetermined one, but reflects real concern for the lack of real answers to hard questions. "No one wants to be the first maimed or casualty victim," Baroumes added.

According to a General Accounting Office report, shipments from Sweden and Japan in 1984 and 1985 were transported through Seattle to ARCO Idaho. But the union, citing the radiation threat, said that the West Coast is not a necessary conduit for the transfer of Taiwan fuel since it would be processed at the Savannah River Plant in South Carolina.

The DOE and coalition will present oral arguments before the Federal

Court on the risk factors involved in the transport of radioactive materials, and the need for an environmental impact statement.

*An affidavit by Campaign staff scientist Dr. Marvin Resnikoff, in support of the coalition's request for an Environmental Impact Statement, is available from the Campaign.*

## HIGH LEVEL WASTE INFORMATION

The Sierra Club Radioactive Waste Campaign has put together an information packet on high level waste repositories in crystalline rock—testimony and important articles. Ask for the *HLW PACK*. Include \$5 for copying and postage.

## Whoops! Wrong Turn!

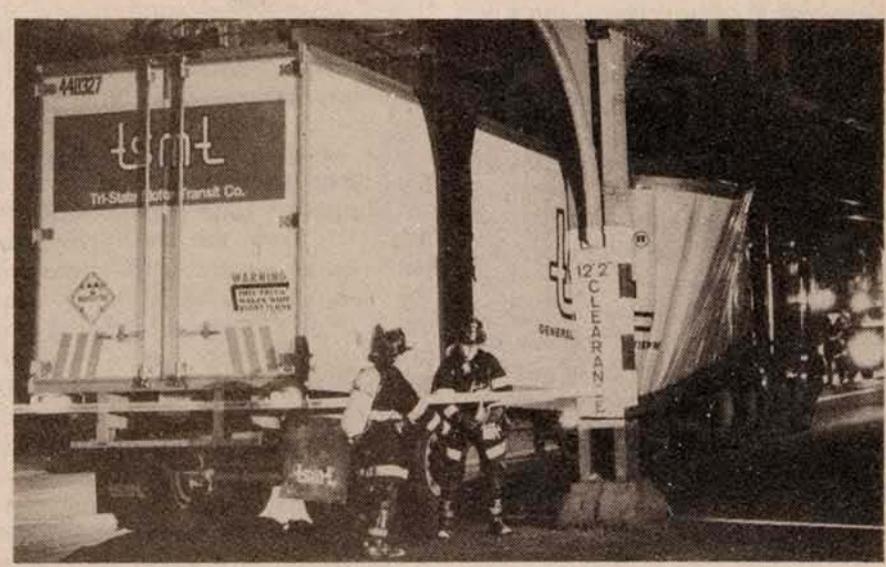


Photo by New York Daily News

This truck containing 245 barrels of low-level medical waste jammed under an elevated train platform in Queens, March 17, blocking subway service and traffic for eight hours. The driver made a wrong turn off a federally prescribed route. Fortunately, no barrels ruptured, but the truck got a little bent out of shape.

**Roman Brice** is a graduating senior at Pace University and an Intern for the Campaign.

# Low Level Waste Roundup

By Jennie Tichenor

In addition to passage of amendments to the Low Level Radioactive Waste Act, seven of the nation's low-level waste compacts were ratified by Congress in December and signed into law by President Reagan in January. These regions are in various stages of progress, some having created their siting criteria and working on specific site selection, and others without any site specifications and potential sites in each of their compact states. "Not in my backyard" is the frequent cry, as citizens become more aware of the health risks associated with nuclear waste. Such enticements as fiscal incentives and promises of self-monitoring rights are being used to encourage states to step forward as volunteers, with some success. There are widely varying degrees of citizen involvement within each of the compacts. Each of the compacts has unique and individual obstacles to overcome in order to reach the complete consensus necessary for these compacts to work. None have yet led to new disposal facilities.

## NORTHEAST

(Mass., R.I., N.H., Maine, Vt.)

The present status and future of the New England Compact is, at best, unclear: it could be called the "un-compact". Some Massachusetts legislation on management and siting criteria is in process, but little is expected to be accomplished before the November elections. A Massachusetts-Rhode Island compact would be beneficial to both states; Massachusetts could exclude wastes from other states, as allowed under the Low Level Radioactive Waste Act, and Rhode Island would escape hosting a facility. As for the Northern New England states (Maine, New

Hampshire, and Vermont), only discussions have taken place. The primary issue concerns the three nuclear reactors within these three states. All operating licenses will expire within the next 25 years, and the cost of decommissioning waste would severely tax any compact site. Maine and Massachusetts both require referenda to ratify any specific site.

## MIDWEST

(Minn., Iowa, Mo., Wis., Mich., Ind., Ohio)

All seven states in this compact are still being considered as potential host states, with selection of a host and alternate host state to be completed by December, 1986. To encourage the states' cooperation, the Compact Commission has created an elaborate plan of "model incentives", including financial benefits of up to \$9.4 million (primarily through facility operator fees) and improved degrees of local site control. The Commission has not ruled out shallow land burial, and is leaning toward supercompaction for volume reduction.

## ROCKY MOUNTAIN

(Nev., Wyo., Colo., N.M.)

The hardest decision for any compact never needed to be made here, as Colorado volunteered to be the host state from the start. The compact's major generator (80 percent of the compact's total volume), Colorado is now completing the second phase of site selection. The entire compact area only produces 6,000 cubic feet of waste per year, primarily from hospitals and research institutions, making their storage problems less acute than those of other compacts. The compact leadership believes that shallow land burial (burying the waste in high-integrity containers) may be used, as there are sites available with 5,000 feet deep deposits of shale. The Beatty, Nevada landfill will close the end of 1992.

## California

This might be labeled "radioactive roulette." The original 1982 plan was for California to join in a compact with Arizona. But that compact bill never made it out of the Legislature. Progressives in California are supporting an agreement with South Dakota, in a bill which would assign greater responsibilities to non-host states (such as the transfer of sites after a 25- or 30-year period) than the California-Arizona bill. Arizona, which would ultimately produce approximately 30% of the waste in that two-state situation, is anticipating that the waste disposal site will be in California, particularly since 30% of Arizona's nuclear power industry is owned by California energy companies. But California, as a major generator of radioactive waste, can pretty much pick its partners as it chooses. It produces enough waste by itself to justifiably become a single state entity (like Texas), and has already done much toward site selection. California has not ruled out shallow land burial entirely, but is seeking alternatives. Citizen involvement has picked up lately.

## Texas

When Texas decided in 1980 to go it alone with its own one-state low-level waste facility, it thought that its problems were solved. But it was then the real problems began. Much infighting has produced hard feelings and a potentially dangerous siting plan. The site, originally chosen in the scenic rich farmland of sparsely populated Hudspeth County, was first rejected on technical grounds, then reselected when citizens in the southern part of the state (where the majority of the waste is generated and most of the population is located) pressured legislative representatives from the area. The Texas Alert Citizens for Environmental Safety (ACES) has had a number of fierce battles with the Texas Low-Level Radioactive Waste Disposal

*Jennie Tichenor is the Campaign's Office Manager, and President of the National Nurses Alliance for the Prevention of Nuclear War. She is the 1986 recipient of the Distinguished Service Award from the New York State Nurses Association.*

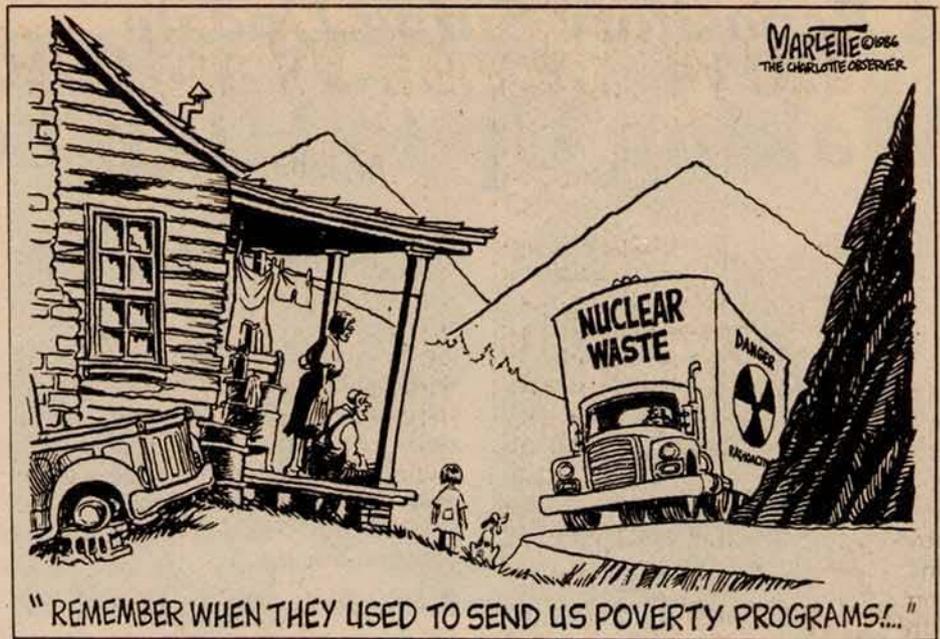
Authority on the issues of shallow land burial, inclusion of plutonium, and generator liability. Waste generation will start in a big way when four nuclear power plants in south Texas, providing power and jobs for that region, go on-line soon. This would require their waste to move across at least 800 miles to any western site. There are still some geological studies in progress, and definite site selection is scheduled for late 1986 or early 1987.

#### CENTRAL MIDWEST (Ky., Ill.)

The Central Midwest Compact has had one of the highest degrees of citizen input of all of the compacts. From the first, Illinois was designated the host state (Illinois' Commonwealth Edison generates 99 percent of the compact's radioactivity), so the environmental community was able to get in early. They have won many victories, including prohibiting shallow land burial and putting the liability on generators, to the extent possible). No specific site has been chosen yet, but siting criteria have been developed.

#### SOUTHEAST (Va., Tenn., S.C., N.C., Miss., Ala., Ga., Fla.)

Site selection has been narrowed to four states, with North Carolina first and Alabama second. Public hearings in the top four states will be held in the next few months, with the final decision by the Compact Commission on July 14. The May 27 hearing in North Carolina should be lively, to say the least: many North Carolinians do not agree with their state's representatives on the Commission who have stated that North Carolina will be 'the good soldier' and take the site for the compact. North Carolina has not even prohibited shallow land burial or required on-site storage of low-level waste at its four nuclear power plants. But if North Carolina decides to pull out of the compact, it may be forced to go it alone, as it's doubtful any other compact will take it in. Also, none of the other states in the compact have done any work within their own states, as they have always assumed that North Carolina will be the host state. Thus, withdrawal of North Carolina could jeopardize the future of the entire



Cartoon reprinted with permission of Doug Marlette

compact. The Barnwell, S.C. landfill is due to close the end of 1992.

#### APPALACHIA (Pa., W.Va., Del., Md.)

The major points of this compact have been decided, with Pennsylvania to be the host state and several critical environmental victories won (see last *Waste Paper*). The Sierra Club is extremely active in planning the compact, participating in the determination of siting criteria, facility design, and technology. Since no state which generates less than 25 percent of Pennsylvania's waste must site a waste facility, Delaware and Maryland see obvious advantages in joining the Appalachian Compact, and dropping from the Northeast Compact, where their future is less certain.

#### NORTHEAST (Conn., N.J.)

Two of the original states of the Northeast Compact, Maryland and Delaware, are withdrawing from the Northeast Compact. Legislation was recently signed by the Delaware Governor, and Maryland legislation has passed one House. New Jersey was always assumed to be the host state, so environmental groups have had much opportunity to try to make the best of what could be a very bad situation. An unspoken rule, which hopefully will be incorporated into

proposed siting legislation, is a ban on shallow land burial, already in effect for hazardous waste management. New Jersey and Connecticut are now coming to terms with the meaning of a two state compact, though the District of Columbia has petitioned to enter the Northeast Compact.

#### South Dakota

South Dakota environmentalists wanted a compact with California; the South Dakota governor wanted a compact with Arizona. So, on the last day of the recent legislative session, in a flurry of partisan backroom politics, the governor 'houghoused' his legislation. ('Houghousing' is a tactic by which the contents of an unrelated bill which has already been passed is replaced by the contents of another bill). In addition, the governor included a stipulation in the bill that whichever of the two states ratified the bill first, California or Arizona, would be the state South Dakota allied with. But everyone knew that the Arizona legislature was in session while California's wasn't . . .

The citizen-based Nuclear Waste Vote Coalition is planning a petition drive to place the compact bill on the November ballot as a referendum. South Dakota voters rejected one undesirable compact, supported by

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## A Repository Siting Update

# Waking Up to High Level Waste

By Laura Haight

With only 90 days to respond to the Department of Energy's recommendations for a second high level waste repository, citizens throughout the northeast, midwest and southeast have raised their voices in unison: "Not in our backyard — and not in anybody's backyard."

On Jan. 16, when the DOE released its Draft Area Recommendation Reports proposing 12 sites and eight alternates, it caught most citizens by surprise. But it has since resulted in a phenomenal process of self-education and community organizing, as newcomers to the field have reached out to one another and to established organizations.

Across the political spectrum, citizens not only questioned the safety of disposal schemes, but the need for continued generation of this deadly material. "People who never before would consider themselves anything but conservatives are now turning around and saying if nuclear power means nuclear waste then we don't want it," said Lisa Finaldi, former co-director of the Sierra Club Radioactive Waste Campaign, and now a volunteer organizer for the Radioactive Waste Watch in North Carolina.

Some have called DOE "the fox guarding the chicken coop," for promoting nuclear power, producing waste at its own weapons production facilities, and now searching for a disposal site. And, as one defiant Maine resident warned the DOE at a hearing, "When the fox eats the chickens — I shoot the fox."

During the 90-day public comment period, tens of thousands attended nearly 40 hearings in the eastern states, presenting an estimated 30,000 comments to which the DOE must respond. According to DOE's media contact Brian Quirke, it will take 20 to 80 people working full-time

for the next eight months to respond to all the comments. The drain of responding to public concerns has already taken its toll: the 20,000 comments that flooded the DOE's office over the first-round repository has delayed the selection process by a year-and-a-half.

### Northeast

The New England states probably gave the DOE its most ferocious reception. Maine residents near Sebago Lake, a prime resort area, threatened to blow up their wells in order to make the rock useless for a repository, while in New Hampshire, angry residents wrote "If this site is chosen for a nuclear waste dump, hundreds of us will be forced from our homes, at gunpoint if necessary, to make way for a desperate and ill-advised experiment." The other Maine site, near Bottle Lake, includes part of the

Penobscot and Passamaquoddy Indian Reservation [see below]. In New Hampshire, a truck convoy of over 300 trucks descended on Concord, the state capital, in a drizzling rain, to protest a proposed repository near Hillsboro. [see cover photo] More than 500 speakers testified at DOE hearings.

At the March 25 hearing in Portland, Maine, testimony included: a pitcher of water from a creek near Sebago Lake which Alva Morrison of the Maine Nuclear Referendum Committee persuaded the DOE panel to drink; poetry readings; a chorus of Maine musicians who led the audience in song; the week-old winning cake of the Naples Father/Son Boy Scout Bake-Off in the shape of the Sebago pluton with little "NO!" flags all over, and a head of lettuce. The lettuce was in response to a DOE remark that Maine citizens were more likely to get cancer from



Photo by Laura Haight

Donning radioactive trash bags, raucous members of Citizens Against Nuclear Trash (CANT) whoop it up outside the Department of Energy's hearing on high level waste, Portland, Maine, March 25. CANT members shined flashlights underneath plastic cups to show their water glowing in the dark.

**Laura Haight** is the Campaign's Organizer and Acting Director.

the lettuce in their salad than from a high-level waste dump. In the lettuce was a sign reading, "Stop me before I kill again!"

When asked about the cake and the lettuce, DOE spokesman Brian Quirke said, "I don't know what happens to those."

Maine is the only state so far that has taken action to curtail its nuclear reactors as a result of the high-level waste siting. Maine Senator Thomas Andrews introduced legislation in March to phase out the Maine Yankee nuclear reactor. While the legislation failed, the Maine Nuclear Referendum Committee intends to put the measure on a referendum for the 1987 elections. Committee spokesman Charlie Ipcar said he expects the measure will be much more successful than previous ballot measures due to the increased awareness in the state about the problem of nuclear waste.

### Southeast

Citizens in the southeastern states feel they are on the inside track because of their proximity to the DOE's facilities at Oak Ridge, Tennessee. The DOE selected five sites and two alternates in North Carolina, Virginia, and Georgia. Janet Hoyle, of the Blue Ridge Environmental Defense League, said "If the MRS [Monitored Retrievable Storage] is sited for Tennessee, we feel that the three states in the southeast are especially vulnerable for a repository."

Hoyle's organization, in western North Carolina, has been active since early 1984 to prepare and educate the public for the DOE decision, holding large public meetings and reaching out to national nuclear waste activists. Recently, the League has been joined by at least seven new local groups that sprang up in western North Carolina to work on high level waste.

While the DOE hearing in Asheville drew 260 speakers and over 1000 people, eastern North Carolina, by contrast, drew only about 400 people. Hoyle suggested that while "western North Carolina felt politically vulnerable . . . eastern North Carolina probably feels safer" since it is a large population center containing Raleigh, the state capital, and the Research Triangle. Said Lisa Finaldi of Raleigh, "Prior to Jan. 16



Photo by Bill Hoy

Citizens from BAND hold a candlelight vigil outside the DOE hearing in Bedford, Virginia on March 24, while 600 residents waved "No" signs inside.

everybody here was asleep." People are awake in North Carolina now, though: in the May 6 primaries, 93 percent of the voters in a non-binding referendum voted against a high-level waste dump in their state.

Georgians are presented with a tough climate in which to organize. Said Felix Rogers, of the Sierra Club in Atlanta, Georgia, "The state is so lethargic and so quiet it's like opening the door for DOE," while getting state and local press to cover the issue is "like getting molasses to pour in December." In Virginia, South Side Concerned Citizens in Halifax County had already gained experience in fighting uranium mining locally before working to oppose a high-level repository in the county. They were able to assist BAND, in Bedford County, to organize and develop strength.

### Midwest

Minnesota and Wisconsin were perhaps the hardest hit by the DOE announcement. In Minnesota, which contains three of the 12 potential sites and five of the eight alternates, nuclear activists in a sarcastic mood suggested printing up T-shirts with a map of the sites and the caption "Reagan's Revenge." Wisconsin has the largest rock body being considered, with one potential area of 1094 square miles, encompassing seven counties and overlapping three In-

dian reservations.

In Minnesota more than 9,000 people attended the eight public hearings across the state. Ada, a town of 1200 residents, had 2100 at one hearing. Marianne Coyle, of Minnesota Public Interest Research Foundation (MPIRF) said that while the job of organizing around eight sites is massive, Minnesota groups probably have more support from the State government than any other of the second-round states. The state has produced impressive fact sheets and a slide show. In northern Minnesota, citizens are working with Canadians across the border in Manitoba, who are affected because of a proposed site near the Red River, which flows northward. Several of the northern sites are located near Indian reservations, such as the White Earth Reservation.

In Wisconsin, where there are some 25 groups in the state working on high-level waste, activists have already met to appoint an umbrella organization, Nukewatch, and to set up a formal communications channel through the Farm and Labor Party newspaper. Steve Ventura, Conservation Chair of the Wisconsin Sierra Club Chapter, said an important coalition goal is to raise public awareness over links between the production cycle and nuclear waste. Wisconsin groups are working for a referendum to pose a moratorium on new nuclear plants.

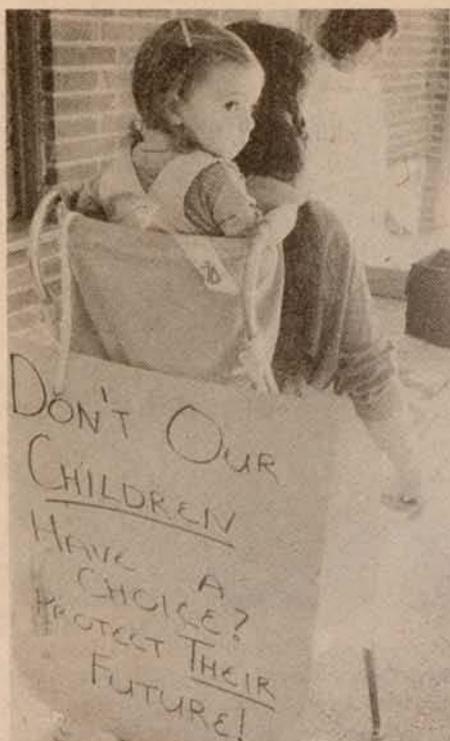


Photo by Bill Hoy

Two-year-old Tera Gatti and mom Kelly Gatti protest a nuclear dump in Bedford, Virginia.

### Indian Nations

At least five Indian nations are affected by the DOE's selection: in Maine, the Penobscot and Passamaquoddy nations, and in Wisconsin, the Menominee, Stockbridge and Munsee nations. Unlike the other citizens groups, who have been working with their state and local governments, the Indian nations have opted to deal directly with the DOE as separate political governments from the states. While the Nuclear Waste Policy Act disqualifies federally-protected lands, the DOE interpreted the Act to include Indian reservations. According to Theresa Secord, staff geologist for the Penobscot Nation in northern Maine, Indian nations were allowed no input on the DOE weighting workshops to create siting criteria. In their first formal response to the DOE's Draft ARR, the Penobscot and Passamaquoddy Indian Nations, who in 1980 won a claim to 300,000 acres of Maine, wrote, "With the ink barely dry on the historic settlement in which the U.S. promised to return this land to the tribes, the Department proposes to break the government's words," using Indian land "to

store high level waste which the tribes had no part in producing." The DOE in its siting process ignored cultural values, said Secord. "Land has a different meaning to an Indian than to a non-Indian."

First-round states are eagerly awaiting the DOE's release of the final sites for characterization, expected soon. As we go to press, rumor has it that the DOE may disqualify Hanford, and substitute the salt domes in Richton, Mississippi. Joan Mootry, a founder of the Hanford Education Action League in Washington, who heard the rumor, said "We don't feel Hanford should have been on the list in the first place," citing a long list of contamination at the site from military waste and plutonium production.

One of the more ingenious tactics used by first-rounders is in Texas, where a group of farmers whose land is in or adjacent to a proposed DOE site formed a Nuclear Waste Development Rights Trust, which requires DOE to get approval from the group at large if it wants to gain access to an individual's land for any kind of surface or subsurface exploration. 15-20,000 acres have already been put under this deed restriction.

Sometimes overlooked in the commotion are DOE's plans for a Monitored Retrievable Storage Facility (MRS) to temporarily hold waste until a permanent repository is found. Groups in the southeast are the most concerned about this, since the DOE has been considering the

old Clinch River Breeder Reactor site in Oak Ridge, Tennessee. Says Caroline Petti, "Silence on MRS is equal to endorsement in a lot of ways."

The second-round states have brought in scores of new groups, new individuals, new ideas, and new energy to the ever-growing community of nuclear waste activists. "We're about the only community whose goal is to eventually put itself out of work," said Marianne Coyle of MPIRF. The DOE has been hard put to keep up with them.

## Nuclear Waste Contacts

The following public interest organizations can provide more information on nuclear waste.

### NATIONAL AND REGIONAL ORGANIZATIONS

**Environmental Policy Institute**  
218 D Street, S.E.  
Washington, D.C. 20003  
(202)544-2600

**New England Coalition on Nuclear Pollution**  
Box 545  
Brattleboro, VT 05301  
(802)257-0336

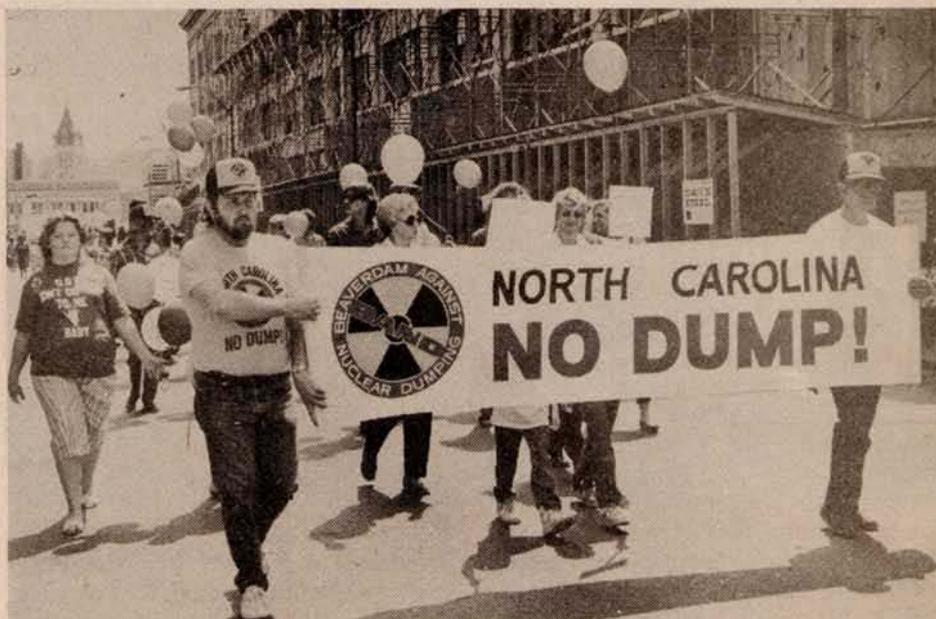


Photo by Charlie Buchanan/Winston-Salem Journal

### Nuclear Information and Research Service

1616 P Street, NW  
Suite 160  
Washington, DC 20036  
(202)328-0002

### Sierra Club Radioactive Waste Campaign

625 Broadway, Second Floor  
New York, New York 10012  
(212)473-7390

### Southwest Research and Information Center

P.O. Box 4524  
Albuquerque, NM 87106  
(505) 262-1862

### Southwest Research and Information Center

2001 O Street, NW  
Washington, DC 20036  
(202) 457-0545



Photo by John Stennes/Grand Forks Herald

Nearly 100 4th and 5th graders from Warren Elementary School came equipped with "NO" signs when they attended the nuclear disposal site hearing on April 1 in Warren, Minnesota.

## LOCAL AND STATE-WIDE ORGANIZATIONS

### Georgia

Sierra Club of Georgia  
187 Degress Avenue, N.E.  
Atlanta, GA 30307  
(404)522-9001

### Maine

Citizens Against Nuclear Trash (CANT)  
P.O. Box 701  
S. Casco, Maine 04077  
(207)655-4661

Lakes Environmental Association  
102 Main Street  
Bridgton, ME 04009  
(207)647-8580

Maine Nuclear Referendum Committee  
P.O. Box 2627  
Augusta, ME 04330  
(207)622-4395

### Minnesota

Minnesota Public Interest Research Foundation  
2412 University Avenue, S.E.  
Minneapolis, MN 55414  
(612)376-7554

### Mississippi

Mississippi Environment Management Organization  
P.O. Box 16937  
Jackson, MS 39236  
(601)366-1205

### Nevada

Citizen Alert  
P.O. Box 5391  
Reno, NV 89513  
(702)786-4220

### New Hampshire

New Hampshire Radioactive Waste Information Network  
P.O. Box 193  
Warner, NH 03278  
(603)847-9026

### North Carolina

Blue Ridge Environmental Defense League  
P.O. Box 1308  
West Jefferson, NC 28694  
(919)982-2691

North Carolina Radioactive Waste Watch  
P.O. Box 11311  
Raleigh, NC 27604  
(919)832-7491

Western North Carolina Alliance  
P.O. Box 117  
Murphy, NC 28906  
(704)693-1702

### Tennessee

Highlander Center  
Route 3, Box 370  
New Market, TN 37820  
(615)933-3443

Tennessee Valley Energy Coalition  
1407 East Fifth Avenue  
Knoxville, TN 37917  
(615)637-8018

### Texas

Serious Texans Against Nuclear Dumping  
218 East Bedford  
Dimmitt, TX 79027  
806-647-5735

People Opposed to Wasted Energy Repositories  
Route 1  
Hereford, TX 79045  
(806)258-7583

### Virginia

Bedford Against Nuclear Dumps  
c/o Cal Johnson  
YMCA  
P.O. Box 1041  
Bedford, VA 24523  
(703)586-3484

Halifax Nuclear Waste Task Force  
c/o Edmunds and Watson  
Courthouse Square  
Halifax, VA 24558  
(804)476-6202

### Washington

Hanford Education Action League  
S. 325 Oak Street  
Spokane, WA 99204  
(509)624-7256

Sierra Club/Northwest Regional Conservation Committee, Nuclear Task Force  
8828 Battle Point Drive  
Bainbridge Island, WA 98110  
(206)842-6552

### Wisconsin

Nukewatch  
315 W. Gorham  
Madison, WI 53703  
(608)256-4146

Wisconsin Radioactive Waste Review Board  
620 Tenney Building  
3 South Pinkney  
Madison, WI 53702  
(608)267-3571

# Waste Pot Boils in Britain

With the announcement in March by the secretary of state for the environment that four potential low level waste sites have been selected for detailed investigation, the simmering radioactive waste debate quickly turned to a boil in Great Britain.

With signs like "No Dump," and "Stuff Your Waste," Bradwell on Sea could be mistaken for Portland, Maine. Petitions, colorful signs and calls for the shutdown of the nuclear industry now echo on both sides of the Atlantic.

The opening shot came Feb. 25 when Kenneth Baker, secretary of state for the environment, requested Parliament to pass a special development order giving NIREX, the proposed operator of the waste site, planning permission to carry out detailed geological investigations at four possible sites. The sites, all lo-

cated in clay on the eastern part of Great Britain, are: Elstow in Bedfordshire, Fulbeck in Lincolnshire, Bradwell in Essex, and South Killingholm in South Humberside. NIREX, Nuclear Industry Radioactive Waste Exchange, is a consortium of major waste generators in Britain including the electric utilities and British Nuclear Fuels Limited, the nuclear fuel supplier and reprocessing company. The order would allow NIREX to override local planning commissions in order to do test drilling, soil sampling and would regulate work on the sites.

Surprisingly, all four sites are in Conservative-held constituencies, which place the affected Members of Parliament (MP) against their own party. One Conservative MP, Michael Brown of Humberside, near the Bradwell site, promised to resign

if a nuclear waste dump were sited in his district. Even the Thatcher government's chief whip in Parliament, John Wakeham, said he would not tolerate a site in his county, Essex. Located on the sea, Essex is the home of 10,000 yachts, and two fishing companies. But most Tory MP's stood by the government's plans, saying that Parliament should reject "emotional humbug and claptrap." Parliament is expected to vote on the SDO in late April.

The political contradictions also extend to the Labor side of the aisle. Since the nuclear industry employs 150,000 people in Britain, many in Labor-held districts, the Labor opposition cannot simply call for a shutdown of the nuclear power industry. At the last Labor convention, a two-

*continued on page 18*

## DOE Waste/continued

three million cubic meters of plutonium-contaminated waste became 33,000 cubic meters, without even a note of explanation. This amount of plutonium-contaminated waste, 33,000 cubic meters, could now be accommodated by the WIPP facility.

### Case 3. Defining Away the High Level Waste Problem.

With 29 million gallons of high level waste in tanks at Hanford, not counting the 500,000 gallons already leaked into the environment, DOE clearly had a waste management and budget-busting problem. The Nuclear Waste Policy Act required the waste to be solidified and buried in a high level waste repository licensed by the Nuclear Regulatory Commission. According to the old regulations, AEC Chapter 0511, "High level liquid wastes shall be converted to suitable physical and chemical forms and confined in a manner which shall provide *high assurance* of isolation from man's environment with minimal reliance on perpetual maintenance." The words, "high assurance" are lofty, maybe impossible, goals, for 29 million gallons of radioactive waste. No problem for

DOE, though.

To accommodate the Waste Act, DOE made a distinction between wastes produced before the Act and waste produced after. For waste produced after, the Act would apply, and wastes would be solidified, in a form acceptable to the NRC. According to DOE Order 5820.2, "New and readily retrievable existing HLW shall be processed for disposal in a geologic repository according to the requirements of the Nuclear Waste Policy Act of 1982." But what about the 29 million gallons of existing waste? According to DOE, this waste "will be stabilized in place if, after the requisite environmental documentation, the stabilization in place meets applicable EPA standards."

This is cost-cutting beyond David Stockman's wildest dreams. According to the draft environmental impact statement for Hanford, released March 1986, the estimated cost to remove and dispose of high level waste is \$11 billion; the cost to fix it in place with cement is \$2 billion plus \$1 billion per century for monitoring and maintenance.

### Case 4. Defining Away Hazardous Waste

Following the release of 2.4 million pounds of mercury into the Clinch River by DOE's Y-12 plant, the federal courts were convinced by the Tennessee-based public interest organization, LEAF, that Environmental Protection Agency regulations did indeed apply to hazardous waste at DOE facilities. Through EPA regulations, the states themselves can require a survey of hazardous waste, and monitoring plans, and inspect DOE facilities. Like Dracula avoiding the light, DOE was averse to having states nosing around their plants. Who knows what the states would find? This required some fancy stepping by changing the definition of what is "hazardous." In November 1985, DOE promulgated the By Product rule, which defines a large percentage of "hazardous" material as "radioactive" instead, pulling these wastes under the cover of DOE regulations. If the material is radioactive, DOE regulations apply; if it is hazardous, EPA regulations must also apply.

**Waste Moral: The definition of waste is as important as how waste is managed.**

# Ohio Sues DoE Over Fernald Plant

By Alan Feibelman

The Ohio Attorney General, Anthony Celebrezze, has filed suit against the US Department of Energy (DOE) and the company that managed a uranium processing plant in Fernald, Ohio, through 1985, National Lead of Ohio, as well as its parent company, National Lead Industries.

The suit charges the company violated federal and state hazardous waste laws at the Fernald plant, called the Feed Materials Production Center.

Announced by Celebrezze on March 11, the suit details 27 violations and seeks over \$200 million dollars from the defendants. It comes after 14 months of negotiations by the Attorney General's Office failed to find a settlement with the DOE.

Celebrezze said he filed the suit because DOE refused to "acknowledge that its facilities are subject to state hazardous waste laws and regulations and its insistence that the mixed waste is not subject to either state or federal hazardous waste laws." A similar suit by the public interest group LEAF against DOE in Oak Ridge, Tennessee, was successful in forcing DOE to be subject to the Resource Conservation and Recovery Act regulations for hazardous waste. DOE is now required to survey all hazardous waste at the Oak Ridge facilities and provide a monitoring and pollution abatement plan.

The Ohio suit also charges that wastes improperly stored in pits and barrels have leaked into the soil and groundwater. The Radioactive Waste Campaign is researching the cause of contamination of wells south of the Fernald site.

The suit, filed in the US District Court in Cincinnati, is the strongest action to date by Ohio toward cleaning up Fernald and establishing state and federal Environmental Protection Agency jurisdiction over the

*Alan Feibelman has actively followed issues at the Feed Materials Production Center in Fernald, Ohio on behalf of the Sierra Club, Cincinnati Group, for several years.*



Photo by Phil Woods (Westinghouse Materials Company)

*Environmentalists posing as Westinghouse employees on a tour of the Department of Energy's Feed Materials Production Center in Fernald, Ohio. Tanks holding uranium ore are in the background. Left to right: Laura Haight (Sierra Club Radioactive Waste Campaign), Dan Reicher (Natural Resources Defense Council), Tom Carpenter (Government Accountability Project), Dana Coyle (Campaign), Alan Feibelman (Sierra Club, Cincinnati Group), and Marvin Resnikoff (Campaign).*

plant. A court timetable has not yet been set in the case.

In a related event, the DOE has agreed to prepare an environmental

impact statement for capital improvements planned at the Fernald facility. Alan Feibelman of the local chapter of the Sierra Club called the step "an important victory for local citizen groups who have been concerned that new capital improvements geared towards higher production quotas may further compromise environmental and public safety and health."

## CORRECTION

In the review by Bernard Timberg of "No Immediate Danger," the videotape by Engel and Saldo of radioactive contamination and health effects at Canonsburg, Pennsylvania, several factual errors were made:

- 1) Agnes and Joan Engel are sisters-in-law, not sisters,
- 2) the radiation landfill was hastily buried in 1965-66, not the late 1950's, and
- 3) the baseball field had been leaking radon into the surrounding community for over 60 years, not 30, as reported.

Thanks to Janice Dunn, long-time activist in the Canonsburg area, for bringing these points to our attention, and congratulations for her appearance in January on "60 Minutes."

## Low Level Waste/continued

Chem-Nuclear, that would have accepted waste from the entire country.

Central: Neb., Kan., Okla., Ariz., La.

The Central Compact is now in the second phase of its site selection, but sites in every state, involving thousands of square miles, are still being considered. No specific site criteria have been determined, with shallow land burial still an option. Citizen activity has only recently arisen.

# Waste Legislation Stalled in New York

By Marvin Resnikoff

With pressure off thanks to federal low level waste legislation signed by the President in January, New York legislators are in no rush to deal with the hot potato of what to do with the state's waste. Siting legislation proposed by Governor Mario Cuomo has been stalled in the state Legislature since February and it is not clear a bill will come out this session. The federal legislation extends the deadline from January 1986 to January 1993 when presently operating radioactive landfills must continue to accept out-of-state waste, providing specific progress is made to locate new facilities in each region.

The Cuomo bill, Program Bill #167, establishes a special commission to select a site and disposal method. A resident of the local affected community would sit on the commission, along with representatives of the medical and technical community. The New York State Energy Research and Development Authority is the state agency charged with obtaining the necessary licenses and operating one or more of the waste facilities. At the urging of environmentalists, the bill specifically excludes shallow land burial as a disposal method, and West Valley as a specific site because of the leakage problems plaguing the site. In 1975, for example, radioactive water overflowed the burial trenches at the commercial burial ground, forcing the shutdown of burial operations. In 1983, plutonium was detected migrating underground at least 60 feet from burial holes in the adjacent burial ground associated with Nuclear Fuel Services' former reprocessing operation.

While the Governor's bill is strongly supported by environmentalists, there are several glaring deficiencies. The state Environmental Quality Review law is seriously eroded in limiting the scope of the environmental reviews and hearing topics. Citizens are prohibited from addressing the issue of alternatives to

landfills and whether the proposed site is appropriate. Further, at the insistence of the nuclear industry, bill #167 sets up a public information program on LLW directed by the State Department of Health. Environmentalists questioned the need for this "education" program and the propriety of the Department of Health conducting it. John Matuszek, head of the Radiological Sciences Laboratory and closely tied to the nuclear utilities, has consistently downplayed the effects of low level radiation and the problems at West Valley. According to Lisa Finaldi, former member of the Governor's Radioactive Waste Advisory Committee, and former Co-Director of the Campaign in Buffalo, "It's a propaganda campaign, really. Citizens will lose all confidence in the siting process by putting Matuszek in the picture."

Questions have also been raised about the relationship between wastes at West Valley and the proposed New York State facility. Under a federal project to solidify liquid high level waste at West Valley, over 200,000 cubic feet of waste will be generated, at least a quarter of which will be plutonium-contaminated and long-lived. The Governor's bill allows these West Valley wastes to be included in the new New York State facility. Environmentalists want this extremely hazardous and long-lived waste excluded because the hazardous life of the waste will far exceed the monitoring period for the facility. By allowing plutonium-contaminated waste, the Governor's definition of low level waste differs sharply from the definition in federal law and State Compacts. Other long-lived waste (called class C waste) primarily from decommissioning nuclear reactors, will also be included in the waste facility.

For over a year, the Department of Energy and the Nuclear Regulatory Commission have been discussing behind closed doors the fate of West Valley waste generated by DOE's project to solidify high level waste. A draft Environmental Assessment, released the beginning of May, states that plutonium-contaminated waste

will not be buried at West Valley. The disposal location is not specified. Non-plutonium-contaminated waste will be buried at West Valley in a large covered mound near the burial ground at West Valley formerly used by Nuclear Fuel Services. The NRC has voiced concern about the impact of this new waste facility on waste already buried at the site. Thus, it is possible that New York State will have two waste facilities, one for West Valley waste, and one for the State's remaining waste.

New federal legislation now gives the State more time. Amendments to the Low Level Radioactive Waste Act signed by the President in January gives States until July 1986 to certify their intention to develop a site for waste disposal. Gov. Cuomo will do this by executive order, thereby allowing waste generators to continue to dispose of waste in South Carolina and Washington. The absolute deadline for waste legislation is January 1988, when the State must have a siting law in place. If history is a guide, the Legislature will wait to the last hour before passing ill-considered legislation behind closed doors.

Waste legislation also is hung up because the state Senate refuses to consider legislation on the transportation of nuclear waste, strongly supported by Assembly Speaker Stanley Fink. Transportation has become an important issue because of nuclear fuel shipments from Brookhaven National Laboratory through New York City, and from Chalk River, Ontario to the Savannah River Plant in South Carolina.

**Action:** Urge your New York State legislator and the governor to enact the governor's Program Bill 167 this session. Request that the waste facility exclude dangerous and long-lived plutonium-contaminated and class C waste, and that the Department of Health "education" program be deleted from the bill. Write to Ted McIntosh, West Valley Program, DOE, Washington, DC 20555, for a copy of DOE's Environmental Assessment on Project-Generated Waste at West Valley.

**Marvin Resnikoff** is a nuclear physicist and Campaign Staff Scientist.

## Resources

# Our Own Worst Enemy: The Impact of Military Production on the Upper South

By Laura Haight

By Tom Schlesinger, with John Gaventa and Juliet Merrifield  
Published 1983  
Highlander Research and Education Center  
Route 3, Box 370  
New Market, TN 37820

The South has long been considered a stronghold for the U. S. military establishment. Yet, while southern states depend heavily on military contracts, and assiduously woo them, these states contribute comparatively little weaponry to the Department of Defense (DOD). While the Northeast and California have kept in step with the military's ravenous technological and industrial demands, the South continues to supply the military primarily from its traditional industries such as textiles, tobacco, coal and other minerals, and food.

Tom Schlesinger and his associates at the Highlander Center in Tennessee report on how the South has grown dependent on the military, and how the military, in turn, has in the name of national defense waged war on its own staunchest supporters. In his analysis of eight states of the upper South, Schlesinger provides an excellent historic overview of the growth of defense industrial policy, demonstrating how military contracts and installations have worked to destabilize the southern economy, at a tremendous cost to the environment, and to the health of workers and communities.

Considerable portions of the book are devoted to a historical examination of the Tennessee Valley Authority, the Department of Energy's facilities at Oak Ridge, Tennessee, the mining industry, and their complex interaction with current defense policy. Schlesinger documents his research with a solid review of govern-

ment documents, peppered by personal interviews and excerpts from newspapers and journals.

From the radioactive waste perspective, Chapter 6, "The Atomic Quandary: Oak Ridge," is the most relevant. As the center for Manhattan Project operations in the 1940's, the Oak Ridge facility handled tremendous quantities of radionuclides and toxic chemicals before the dangers of these substances were fully known. Between World War II and 1981, about 12 million cubic feet of low-level waste were dumped into 28 disposal sites on the reservation, many of them unlined. Radioactivity has seeped out and contaminated streams and groundwater both on and off the site. Schlesinger records multiple instances of worker overexposure to mercury. Between 1950 and 1972, 2.4 million pounds of mercury were lost from the plant, presumably into the surrounding environment. According to Frank D'Itri, an analytical chemist and authority

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**"They're using the  
best available  
technology for  
1945."**

—Frank D'Itri,  
*Oak Ridge analytical  
chemist and authority  
on mercury contamination.*

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on mercury contamination, "They're using the best available technology for 1945." (p.133)

"Our Own Worst Enemy" is a valuable resource for understanding much of the southern economy and history of development. For instance, since its beginning, the Tennessee Valley Authority has played a significant military role. Designed during WWI to produce nitrates, the authority supplied phosphates for WWII munitions, and energy for the Manhattan Project. The authority's tremendous demand for energy in the race to build the atomic bomb led to the development and prolonged use of strip-mining, and the impoverishment of coal workers as companies fought for the lowest bid.

Harder to document are the social implications of military contracts in the South. Jim Crow laws in Oak Ridge far exceeded the segregation that festered elsewhere in the South. Moreover, defense contractors have repeatedly thwarted efforts at unionization, and destabilized local economies. Military facilities which pay no taxes are frequently the largest industries within the host communities, yet drain the community with their extra demands for services. In Oak Ridge, where most of the local governing boards are heavily stacked with federal employees, there is virtually a situation of "representation without taxation."

The irony behind the title "Our Own Worst Enemy" lies just beneath the surface of the book. Schlesinger sums it up with the thought, "The hallmark of the military production system, at least in our region, is choicelessness. In communities all around the South, military production is one of the few—if not the only—games in town." Right now, for many people living in the South, making military bodybags or growing military beans, their worst enemy still poses as their only friend.

## Incineration Fact Sheet Hits the Streets

The long-awaited Radioactive Waste Campaign incineration fact sheet is now hot off the presses. "Burning Radioactive Waste: What Comes Out of the Stack?", discusses the health hazards of incinerating radioactive waste and the safer and cheaper alternatives.

As waste generators seek to cut costs by reducing the waste volume, communities will be increasingly threatened with radioactive waste incineration. But incinerators release radioactive hydrogen, carbon and

iodine to the air, and create a highly dangerous toxic chemical, dioxin, in the process. Fortunately, the alternative of tightly compressing and storing waste, is cheaper, more reliable and releases no radioactivity to the air. This eight-page fact sheet answers many questions associated with low-level radioactive waste: what is in it, where it comes from,

and what technology is best for its management. For those who want to read further, an extensive bibliography is included.

"Burning Radioactive Waste" can be a valuable organizing tool for all concerned citizens. Copies are available from the Campaign office for \$1.00 each (or 25 cents apiece for 25 or more).

### British Waste/continued

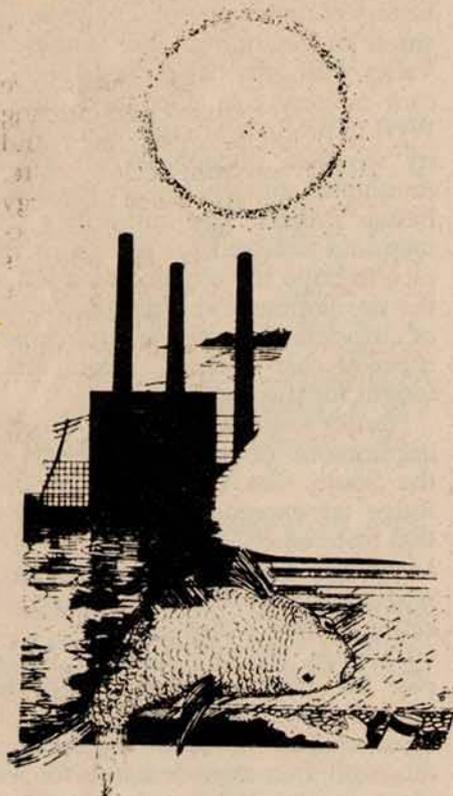
thirds vote needed to include opposition to nuclear power in the party's platform was 5 percent short.

Following site exploration, the field will be narrowed to one site, and public inquiry will be held. Following this, the Nuclear Installations Inspectorate, similar in function to the US Nuclear Regulatory Commission, will hold technical hearings and presumably grant a license. Construction is expected to start in 1990 or 1991. One site holding 170,000 tons would serve Great Britain for 20 years. An additional coastal site would be found for decommissioned submarine reactors. Conveniently, all four sites are immediately available for site exploration. Three are owned by the Central Electric Generating Board, the nation's largest electrical utility, and the other by the Ministry of Defense. Presumably these sites were selected, not because of their superior geological features, but because property would not have to be appropriated by court order.

Great Britain presently disposes of

low level waste at the Driggs waste dump which primarily services the Sellafield (formerly called Windscale) reprocessing plant. LLW was previously dumped into the ocean until the Seamen's Union refused to unload this waste two years ago. The London Dumping Convention, enacted last September against the wishes of France, England and the United States, bans the ocean dumping of waste, setting up this waste crisis in Great Britain.

Local opposition groups have quickly formed in three districts. One site, Elstow, was previously selected. Petitions containing over 100,000 names have been collected at Bradwell and So. Killingholm. Citizens have called for the shutdown of the nuclear industry, and closure of reprocessing operations at Sellafield (formerly called Windscale). For more information about national and local efforts in Great Britain, contact Stewart Boyle, Friends of the Earth, 377 City Road, London EC1V 1NA, Tel: 01-837-0731.



Subscribe to *The Sierra Club Waste Paper*, the world's only quarterly on radioactive waste. Exclusive interviews, investigative reporting, citizens' battles and more! We've got the facts, the figures and the inside story for you. Only \$8 for this important resource.

Enclosed is \$8 for a year's subscription to the *Sierra Club Waste Paper*, or \$14 for two years. International subscriptions are \$15 a year.

I want to stop generating nuclear waste. Here is my contribution to the Campaign.

I would like to volunteer for the Campaign. I can help with research, public speaking, writing, visual arts, organizing, or office work. (Please circle your interests.)

Clip and mail to: The Sierra Club Radioactive Waste Campaign, 625 Broadway—2nd Floor, New York, N.Y. 10012.

Name \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

# Radscope

## Calling Lawrence Livermore: Send Us a Bomb

With all the concern about underground nuclear bomb tests in Nevada and the nuclear arms race, little attention has been directed to who makes these bombs and how they get to Nevada.

So where are nuclear bombs designed?

Sandia National Laboratory, near Albuquerque, New Mexico, and Lawrence Livermore National Laboratory, a part of the University of California system, design nuclear weapons, and test these deadly "toys" at the Nevada Testing Site (NTS), about 60 miles northwest of Las Vegas. These weapons, along with monitoring devices, are fabricated and transported to the test site along Interstate highways. Regular shipments of plutonium and "classified materials" (as the Department of Transportation calls them) move from Livermore. According to DOT, the route follows I-580, then south on I-5 to Bakersfield, east on CA 58 to Barstow, east on I-15 to Las Vegas, and north on US 95 to the Reynolds Electric and Engineering Co. at the Nevada Testing Site. The unmarked trucks have a US government plate, and an armored cab with a luggage rack-like antenna on top. The shipments move in convoys with armed escorts who travel in Chevrolet Suburbans. Rumor has it that the guards have no sense of humor.

In addition to bombs, plutonium-239 moves from Livermore to the Los Alamos National Laboratory in New Mexico. These shipments, containing about one pound of plutonium-239, have two armed guards; the contractor is ABF Freight Systems, an Arkansas outfit. The plutonium shipments follow the same route south and east, but at Barstow the shipments move east on I-40 to New Mexico.

The primary environmental hazard is the spread of plutonium, in the case of accidental detonation. When inhaled in very small amounts, less than one millionth of a gram,

plutonium can cause lung cancer. Because of the cloak-and-dagger nature of these operations, it is impossible to know whether proper safety precautions have been taken.

Since the Livermore weapons shipments go through downtown Las Vegas, someone should inform gamblers that the odds of losing big are somewhat greater.

## It Gets Hot in Alaska

The temperature at Clear Air Force Station, Alaska, is usually cold at the end of September — unless the massive radar is turned on and you're inside! That's exactly what happened to six workers, who were accidentally exposed to radio frequency radiation much above safety standards. As far as can be determined at this stage, other than elevated body temperatures, the workers have not developed health complications.

About 9:45 a.m. on Sept. 14, 1983, an employee shut off the tracking radar for routine scheduled inspection and repair of the antenna. The safety key was stashed for safe keeping. Work was proceeding normally until 3:40 p.m., when, due to human error, the radar was accidentally turned on. According to the Government Accounting Office (GAO), six employees were on the antenna itself, and two employees on the radome floor when the accident occurred. The radome is a sphere, 140 feet in diameter, which houses the tracking radar. About eight minutes elapsed before workers noticed that their flashlights were blinking on and off. Workers then left the radome, reported the incident to management and requested medical attention. The service contractor, FSI, is a subsidiary of ITT Corporation.

Though Air Force health standards emphasize emergency medical care "without delay," FSI management directed employees to reassemble the radar antenna and clean up the work area. At first all employees refused, but eventually three complied with management's orders. GAO does not indicate whether management dis-

ciplined the three balking workers. All employees eventually visited the aid station, from 1½ to four hours after the radiation accident. The nurse found several body temperatures elevated about one degree. Some warm reddish areas were found on the skin of two employees. Approximately 24 hours after the accident, all eight employees were transported to Fairbanks Memorial Hospital. Two employees complained of weakness and dizziness, but no physiological abnormality was detected. The workers have since sued the company.

In addition to radar, microwave and TV towers transmit non-ionizing radiation, unlike alpha, beta and gamma radiation from nuclear waste. When humans are exposed to energy in the radio band of the electromagnetic spectrum, the effect is much like microwave cooking. While non-ionizing radiation elevates the temperature of body fluids, definitive long-range health studies have not yet been carried out.

Constructed in 1961, Clear Air Force Station, located 80 miles SW of Fairbanks, is one of three sites comprising the nation's early warning system against Russian ICBM attack. The other installations are located in Thule, Greenland and Flyingdales Moor, England. More details are contained in GAO's report, "Radiation Accident, Incident at Clear Air Force Station, Alaska," GAO/NSIAD-86-9, November 1985.

## All Aboard, America . . . TMI Waste Moving to Idaho

It's not exactly what Amtrak had in mind by the jingle, "All aboard, America, all aboard, Amtrak," but nuclear waste from Three Mile Island will shortly become a rail passenger.

Beginning late May, irradiated nuclear fuel rubble from the damaged Three Mile Island reactor will rumble through America on its way to Idaho. Stretched out over a year and a half

period, 150 tons of radioactive fuel and metal bits will be transported by rail to Idaho Falls, where the waste will be analyzed. Expected to go on Conrail and Union Pacific tracks, the shipments will pass through the hearts of Pittsburgh, Columbus, Indianapolis, St. Louis, Kansas City, Topeka, Cheyenne and Pocatello, Idaho.

Because of the severity of the Three Mile Island accident and the extent of internal melting, none of the fuel assemblies will be shipped intact. In order to package the reactor melt, GPU Nuclear, the operators of the failed reactor, will use a metal shredder to break the fuel and melted reactor components into smaller pieces. Like a giant "Mixmaster," the metal fuel and reactor internals will be ground up, then placed into canisters under water. Seven canisters will fit into one GE rail cask. Two rail casks at a time will be transferred to the Enola, Penn. freightyards, and be attached to a westward freight train. In order to more closely monitor the shipment, the cask will be among the first 10 or last 10 cars on the train. Casks will be transferred to Missouri Pacific tracks in St. Louis, and Union Pacific in Kansas City, each time sitting in the switchyard for a day or more. To move all the fuel, the casks will make approximately 18 round-trip shipments each.

Since the reactor only operated three months at full power, the irradiated fuel will be 1/10th as radioactive as irradiated fuel from a normal reactor. But each cask will still contain about 100,000 curies of radioactivity, mostly strontium-90. Flammable and corrosive chemicals will be on the same train. A severe accident, in-

volving a fire, could release a witches' brew of radioactivity and chemicals. Most likely local emergency personnel will not be informed of the shipments and therefore will not take the necessary precautions in case of an accident.

**Action:** *Activists should contact local emergency officials and inquire whether safety precautions are being taken for the TMI shipments.*

## High Integrity Container . . . Well, Almost

The new low level waste regulations, adopted by the Nuclear Regulatory Commission (NRC) in 1981, are full of holes.

Well, at least the containers are. Under NRC regulations, 10 CFR 61, containers must isolate waste for 300 years. They must also withstand stress and pressure during handling and burial, resist chemical and radioactivity attack, and be completely sealed to prevent loss of container contents. In general, these high integrity containers (HIC) are made of plastic reinforced by fiberglass. During transport, because of the penetrating gamma radiation, HIC's fit within a lead-shielded overpack or cask.

But internal gas generation has caused the HIC's to hiccup, or bulge, and become stuck in the transport cask. The cause of gas generation, which would eventually lead to rupture of the HIC, is unknown. Rather than eliminate the cause of gas build-up, the NRC now requires a ventilation system, or hole, to allow gases to escape.

Let's see if we have this right.

The 300 year HIC container is designed with a hole in it. Still called "high integrity", though.

## Calendar

In this issue of *the Waste Paper*, we are launching a new column: a quarterly calendar of events across the country. Please send a double-spaced notice, listing time and place of event, price, and contact person by July 15, and we'll list it in the next *Waste Paper*!

### June 10

Kick-off of Great Referendum Petition Drive; Augusta, ME; contact: Charlie Ipcar, (207)622-4395

### July 26

Benefit Concert for Maine Nuclear Referendum Committee, featuring Sally Rogers; Rockport Opera House; Rockport, ME; contact: Charlie Ipcar, (207)622-4395

### July 26

Public forum on Sequoyah Fuels Corporation's Kerr-McGee waste disposal plan; Sallisaw High School cafeteria, Sallisaw, OK. Contact: Brian Hunt, (405)298-2803

### Late July/Early August

National High-Level Waste Conference, Washoe Valley, Nevada; sponsored by Citizen Alert; limited attendance; contact: Bob Fulkerson, (702)786-4220

### Sept. 7-12

Second International Conference on Radioactive Waste Management; sponsored by the Canadian and American Nuclear Societies; Winnipeg, Manitoba; contact: Donovan Timmers, (204)783-8349

### MOVING?

Tell us your new address. Don't miss a single issue. (Third class mail is not forwarded!)

We love to get mail! Send your comments, contributions, letters to the editor, inquiries, even compliments to The Editor, *The Sierra Club Waste Paper*, 625 Broadway—2nd Floor, New York, N.Y. 10012.

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