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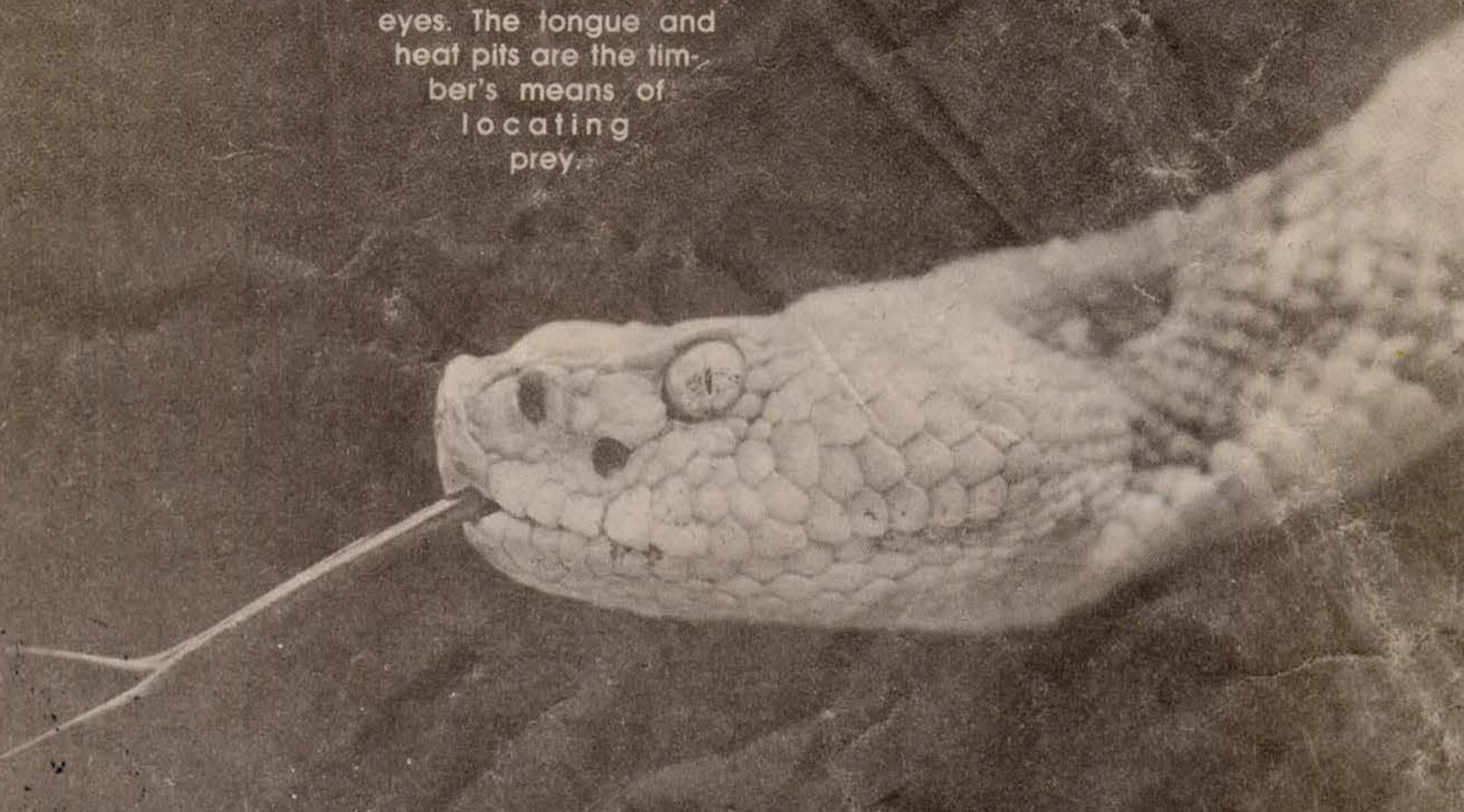
the Waste Paper

Volume 6 Number 3

Many people have a deep, thoroughly irrational, fear and dislike of snakes. We, however, would rather meet a timber rattler any day than a radioactive waste shipment. They are generally retiring and shy.

Timbers seldom bite, unless provoked, teased or stepped upon. Unfortunately, through persecution, overcollecting and loss of habitat, timbers are an endangered species.

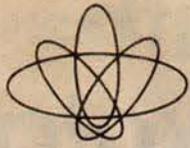
This magnificent close-up by Leonard Lee Rue III shows the snake's intricate scaled, mobile tongue and heat pit, located beneath the eyes. The tongue and heat pits are the timber's means of locating prey.



Next time you hear a utility executive assuring your community that nuclear waste transport poses "no health hazards" ask yourself which is more dangerous, the forked tongue of a timber rattler or that of the utility spokesperson? See our story on nuclear waste transport on page 4.

photo by Leonard Lee Rue
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the Waste Paper

Winter 1984
Volume 6 Number 3

One Chance In A Billion Can Happen Tomorrow

They never knew what hit them. At 4 in the morning, the Marshalls Creek, Pennsylvania, volunteer firefighters were laying out their hoses, preparing to put out a fire in the tire of an unmarked American Cyanamid trailer, when 13 tons of ammonium nitrate and two tons of dynamite exploded. The blast instantly killed six persons, including three firefighters, injured twenty others, and liberated 150 poisonous snakes from the nearby Pocono Reptile Farm.

The accident happened twenty years ago, June 26, 1964, but its in the back of the minds of emergency personnel along the Oyster Creek nuclear fuel shipping route. If one accepts the nuclear industry probability numbers, the odds are similar to a dynamite truck exploding and liberating 150 poisonous snakes.

The reptile collection, an important tourist attraction in this Pocono community, included a king cobra, a boa constrictor, a rattlesnake, a python, copperheads and water-moccasins. By noontime on June 26, about 70 snakes had been shot. Others may have been killed by the blast. Police and games officials spent the week searching and killing the rest. It's not clear whether they got them all. Similar to radioactive contamination, you're never sure you've gotten every nucleus, and whether that stray gamma ray is going to bite you, trigger a mutant gene and lead to cancer.

Albert Koda, driver of the explosives truck, was six miles away when the explosion took place. He was driving east on US 209 when two of his dual tires on the rear of the trailer blew out. He continued driving 1½ miles to the first available parking area - in front of the snake farm. After unhooking the tractor, he claimed to have napped for a half hour, before driving off to a service station in Stroudsburg for assistance. As he was talking to a company salesman, the truck blew. Three signs identifying the truck, "explosives," were in his cab. In a story which claims credibility, Koda said all three fell off his trailer and were recovered and returned to him while he was making the call at the gas station. The good samaritan was never identified. The assumption is, he pulled the signs. Had the contents been known to the firefighters, perhaps more caution would have been exercised.

Once in a Billion Years What is the probability of a truck explosion killing six persons, injuring ten and releasing 150 poisonous snakes? The odds are lower, much lower, than winning a million dollars in the lottery. Back of the envelope calculations by the *Waste Paper* show this type of accident could happen 1¼ times in a billion years. The odds of a nuclear truck having a major accident in a city are three chances in a billion (see box for calculations). Truck explo-

sions involving 15 tons of explosives are rare - less than once in 20 years. The probability that a truck explosion will kill at least six persons and injure ten others, we estimate as one in ten. The likelihood that such an explosion would take place in front of a snake farm is very low, 25 out of a million, based on road front mileage of snake farms compared to total federal and state highway mileage. Factoring in the low probability that a snake farm will have 150 poisonous snakes, we estimate the probability of such a truck accident as a very unlikely, 1¼ times per billion years. Yet it happened 20 years ago in Marshalls Creek, Pennsylvania.

If one believes the calculations of the nuclear industry, an irradiated fuel truck accident is similarly unlikely. According to the Nuclear Regulatory Commission (see box), the odds are three chances in a billion for any given truck. In that eventuality, even with placards, fire departments will not be prepared to handle the radiation emergency. Radiation cleanup crews, in spaceage suits, would search for radioactive contamination like police searched for poisonous snakes. Could it happen? Heavy trucks have accidents at the rate of 4.5 accidents per million miles travelled - 7% of these accidents are severe enough to cause fatalities. Will one of these accidents release radioactivity?

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Congressional Action On Compacts

Udall Proposes Amendments

All "low-level" radioactive waste compacts must be ratified by both Houses of Congress before they go into effect. The governors of the three states with operating radioactive landfills (South Carolina, Washington and Nevada) are anxious to get their compacts ratified in order to solidify their legal right to decline out-of-region wastes. But there are 26 states that are not in compacts, and the Congressional representatives from these states are unwilling to ratify compacts that would leave them without disposal sites come 1986.

This logjam in Congress has forced a reconsideration of the Low-Level Radioactive Waste Policy Act. Congress must decide under what conditions they will ratify the compacts now before them. Since it is unlikely that there will be any new facilities open before the original 1986 deadline, Congress must decide if and under what conditions the states now operating dumpsites will be allowed to exclude out-of-region wastes. Amendments to the Act proposed by Representative Udall extend the cut-off date, originally set as 1986, to 1993, establish yearly upper limit of one million cubic feet at any waste facility, and require any waste exporting to pay rapidly escalating disposal fees after 1986.

The final kicker is that space in out-of-region waste facilities is only "borrowed" - it must be paid back when the exporting region locates a facility. If the Northeast region uses the Barnwell landfill after 1986, then space in Northeast must be reserved for Southeast region. The Udall amendments also allow the Nuclear Regulatory Commission to over-ride compact restrictions on out-of-region wastes, and maintain the old definition, or lack of it, of "low-level" wastes.

Environmentalists see the stalemate as an opportunity to address other problems with the Act, particularly the definition of "low-level" waste. Brooks Yeager, the Sierra Club's Washington lobbyist, called this the "opening to address issues" that we have needed for a while. Although he warns that the reclassification of waste is not going to happen overnight, it is important to be bringing the matter up with Congresspeople now, so that debate can begin.

Since the federal definition of "low-level" waste allows waste with a hazardous life of hundreds to tens of thousands of years in unmonitored landfills, citizens are urged to write U.S. Representatives requesting that long-lived and hazardous radioactive wastes be defined as high-level waste and sent to a high-level repository, when one is available. ☼

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Radscope

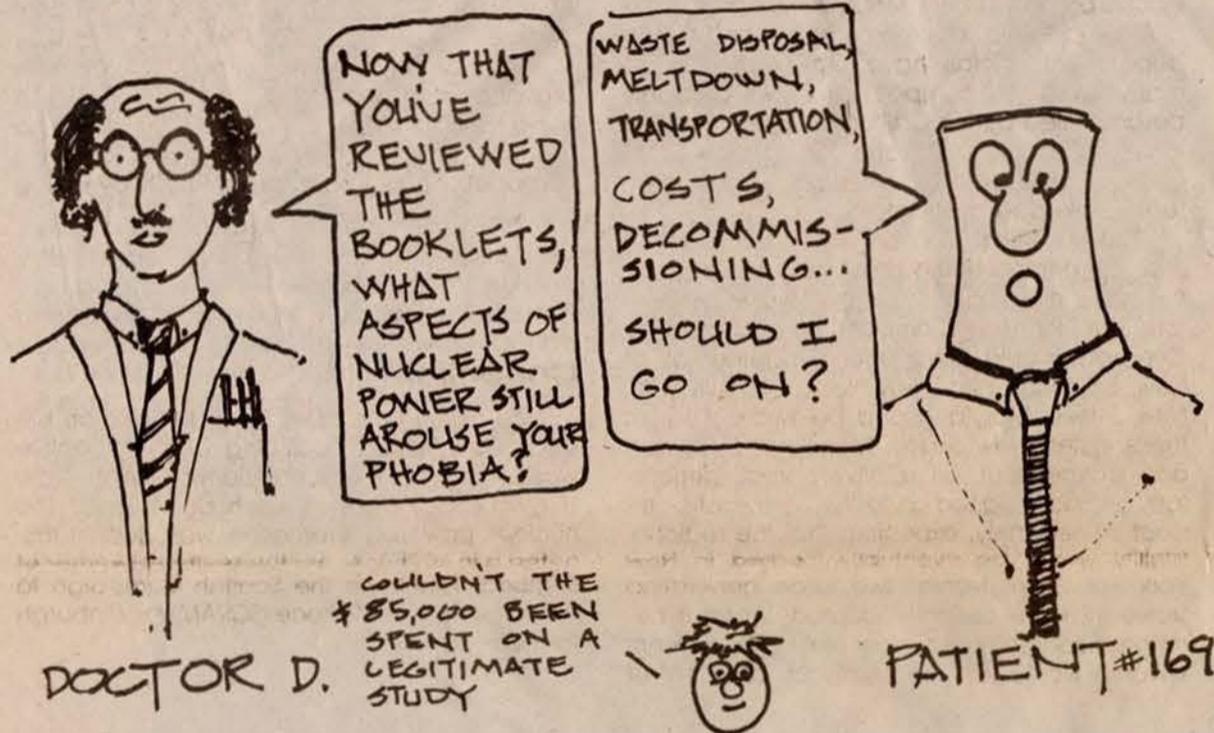
"Phobia Expert" Studies Allaying Nuclear Fears

"Oh No! They want to build a nuclear power plant near my home!" Dr. Robert DuPont, president of the Phobia Society of America would rush to sign up the person making this statement for his Department of Energy (DOE) funded study of "nuclear phobia." Dr. DuPont, who claims people that oppose nuclear power may suffer from a psychiatric disorder, is being paid \$85,000 to find out if these fears can be overcome.

The study involves giving questionnaires to about 170 people, then surveying them a second time after they read a nuclear energy booklet he has prepared. This study is truly a

sham. DuPont is extremely outspoken about the safety of nuclear power. "Fear persists despite the remarkable safety record of the nuclear power industry," he wrote to the *NY Daily News* last year.

Other medical professionals have accused DuPont of "a misuse of psychiatric labeling" and Congresspeople have spoken out against the DOE grant. The DOE should fund research on renewable energy sources, not how to mold the minds of Americans. Let us know if you are called to participate in the phobia program.



graphics by Brian H. Starkey

South Dakota Wins

by Jim MacInness

South Dakota's Nuclear Waste Vote Coalition (NWVC) won a resounding victory in the November 6, 1984 election. Sixty-three percent of the state's voters approved a initiative which gives citizens authority to decide on whether the state should join a low-level radioactive waste compact or host a waste site. That authority had been previously vested in state government.

Waste Management subsidiary Chem-Nuclear has proposed and is testing a site for shallow land burial of low-level radioactive waste near Edgemont, a small town in southwestern South Dakota. Over the past two years, it has orchestrated a massive public relations campaign promoting the Edgemont site, which according to Chem-Nuclear, would accept at least one-third of the nation's low-level waste and provide the company with the business it will desperately need when its present site in Barnwell, South Carolina closes down in 1992. Remember that South Dakota only ships seven cubic feet of waste per year to a burial site.

Chem-Nuclear has admitted to spending about half a million dollars on its public relations efforts. Some of that was given to the Edgemont Chamber of Commerce and some to South Dakotans for High-Tech Jobs, a group set up to oppose the initiative. Both Chem-Nuclear and the High-Tech group spent big bucks on television, radio and newspaper ads.

The NWVC raised about \$28,000 in contributions and used it to buy television and radio advertising. More was contributed by all TV and radio stations in the state as a result of the Fairness Doctrine challenged coordinated by the Dacotah Chapter of the Sierra Club with assistance from the Safe Energy Communications Council.

The Dacotah Chapter of the Sierra Club brought whistleblower Hugh Kaufman from the Environmental Protection Agency to the state for a tour which generated tremendous media attention. Kaufman dismissed Chem-Nuclear's financial and safety assumptions and challenged South Dakota Governor William Janklow and Waste Management President Dean Buntrock to a debate. Both declined, but the League of Women Voters have considered sponsoring a debate between Kaufman and a Chem-Nuclear vice-president. Kaufman contributed his time for the unofficial visit.

Chem-Nuclear's Vice President Andrews says that his company will not challenge the initiative, but will continue its geological testing and "public information" programs. The company plans to spend another \$400,000 on the latter. As Andrews said, the 63% approval of the initiative shows that "clearly we haven't completed our education program."

Jim MacInness is chair of the Dacotah Chapter of the Sierra Club. For more information on the initiative write: Nuclear Waste Vote Coalition, P.O. Box 9084, Rapid City, South Dakota, 57709.

the Waste Paper

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The *Waste Paper* is published quarterly by the Sierra Club Radioactive Waste Campaign in Buffalo, New York. Materials from the *Waste Paper* may be reprinted with credit given. Back issues are available for \$.50. Letters to the editor are encouraged and should be sent to the Buffalo address. Guest writers should inquire or submit copy or ideas to the Editor.

Special thanks to all the volunteers who contribute their time and energy to the *Waste Paper*.

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As We Go To Press

Babcock and Wilcox has applied for a license revision with the Nuclear Regulatory Commission (NRC) to incinerate radioactive waste, both from nuclear power plants and hospitals at its Apollo, Pennsylvania plant, about 20 miles east of Pittsburgh.

Citizens in the area are opposing the incinerator and with good cause. Initially, the company stated it would only be compacting and incinerating hospital and research waste, but the full plan which has recently surfaced is to take 200 tons per year of highly radioactive sludges, resins and filters from reactors as well as the medical waste. Cesium, strontium and cobalt, all of which will be highly radioactive for hundreds of years, are contained in this waste and will be inhaled by Apollo and nearby area residents if the incinerator operates.

The Apollo plant, which formerly fabricated plutonium, became known for the loss of 206 lbs. of plutonium, rumored to have gone to Israel. Babcock and Wilcox have applied for a 4½% interest loan from the Pa. Industrial Development Association, but has not heard either way to date. Should tax dollars be given to multi-million dollar corporations so they can operate facilities which threaten the health and safety of the states' residents?

The State Dept. of Environmental Resources (DER) has expressed "concern," especially since if the plant proves profitable, Babcock and Wilcox would like to fireup two more incinerators. The first one is planned to begin operating in May 1985. For more information contact: Andrew Sziraki, Kiski Valley Coalition, P.O. Box 126, Vandergrift, Pa. 15690.

We're Sorry

Dear Readers,

We wanted to apologize for only producing three issues of *the Waste Paper* in 1984. No your paper was not lost in the mail. Unfortunately we've had so many waste problems to contend with, we were unable to keep to our schedule of four issues published seasonally since 1979. We'll be back in full force on the track with our new computer in 1985.

The State of the Low-Level Waste Compacts

How far have the states come in their task of planning for the disposal of their own "low-level" radioactive wastes? As a result of Low-level Radioactive Waste Policy Act of 1980, the states are required to assume responsibility for these wastes and are encouraged to form regional "compacts" with other states to site and administer regional low-level waste disposal facilities. A survey of the states shows all kinds of ideas about compacts and ways to form, or avoid forming them. There is also some encouraging news as some states and regions *reconsider* (on paper, at least) traditional shallow land burial.

Waiting for Ratification Four compacts have been submitted to Congress for ratification. Two of these, the Northwest and Southeast compacts include operating low-level waste dumps, (Richland, Washington and Barnwell, South Carolina, respectively) and the compacts assume continued use of these dumps. The third — the Rocky Mountain Compact — includes a dumpsite in Beatty, Nevada that is currently being closed down, but a new site selection process is going on, concentrating on Colorado. The fourth — the Central States Compact — includes Nebraska, Kansas, Oklahoma, Arkansas, and Louisiana. All four compacts will have to be reintroduced in the next session of Congress, starting in January, 1985.

The Lone-Star State Texas has decided not to join a compact and has created a Texas Low-Level Radioactive Waste Disposal Authority, which is to site and operate a for-Texas-only landfill. There is some question as to whether an individual state can operate an exclusive facility, and some other states are seeking to join in a compact solely for the exclusionary privileges a compact provides.

The Midwest Other compacts are now in various stages of negotiation. The Midwest Compact has been agreed to and approved by Indiana, Iowa, Michigan, Missouri, Ohio, Wisconsin, and Minnesota. North Dakota and South Dakota are eligible to join this compact but

have not yet made a decision (some good news on South Dakota in *Radscope*, page 2. At this time, there has been no decision on where to site a regional facility, but environmentalists have won a battle by getting a ban on shallow land burial written into the compact.

Illinois was part of the original Midwest Compact, and as the generator of the largest amount of waste in the region, was the likely candidate to be the "host" state, the state in which the disposal facility would be located. Although Illinois state officials initially liked the idea, thinking that they could raise some quick cash from the fees involved, environmentalists forced them to reconsider. Looking for the exclusionary privileges of a compact, Illinois is establishing a compact with neighboring Kentucky. Illinois will be the host state, but the compact is limited to the two states and conventional shallow land burial will be prohibited.

California-Arizona Another two state compact is proposed between Arizona and California. In California, environmentalists and health department officials have drawn attention to many flaws in the compact, and it will probably be amended by the California legislature and then sent back to Arizona for consideration. California will be the host state, and has already talked to contractors.

The Northeast The Northeast is the scene of most uncertainty at this point, no surprise, since it is also the region of the largest waste generators. The Northeast Compact, as proposed by Congress, would have bound together all of New England, plus New York, Pennsylvania, New Jersey, Maryland and Delaware. Four of these states, New Jersey, Maryland, Delaware and Connecticut, all relatively small generators, originally signed on to the Northeast Compact immediately, expecting that the regional facility would be eventually located in New York or Pennsylvania, two large generating states that are centrally located. When it became apparent that neither New York or Pennsylvania would join the compact, and that of

the states that had joined, New Jersey was the likely place for a dump, people in that state began to question whether to stay in the compact. New York State conducted a study of its low-level waste habit, but state officials including Governor Cuomo have been close-mouthed about any plans they may have, while eyeing the leak-prone radioactive landfills at West Valley.

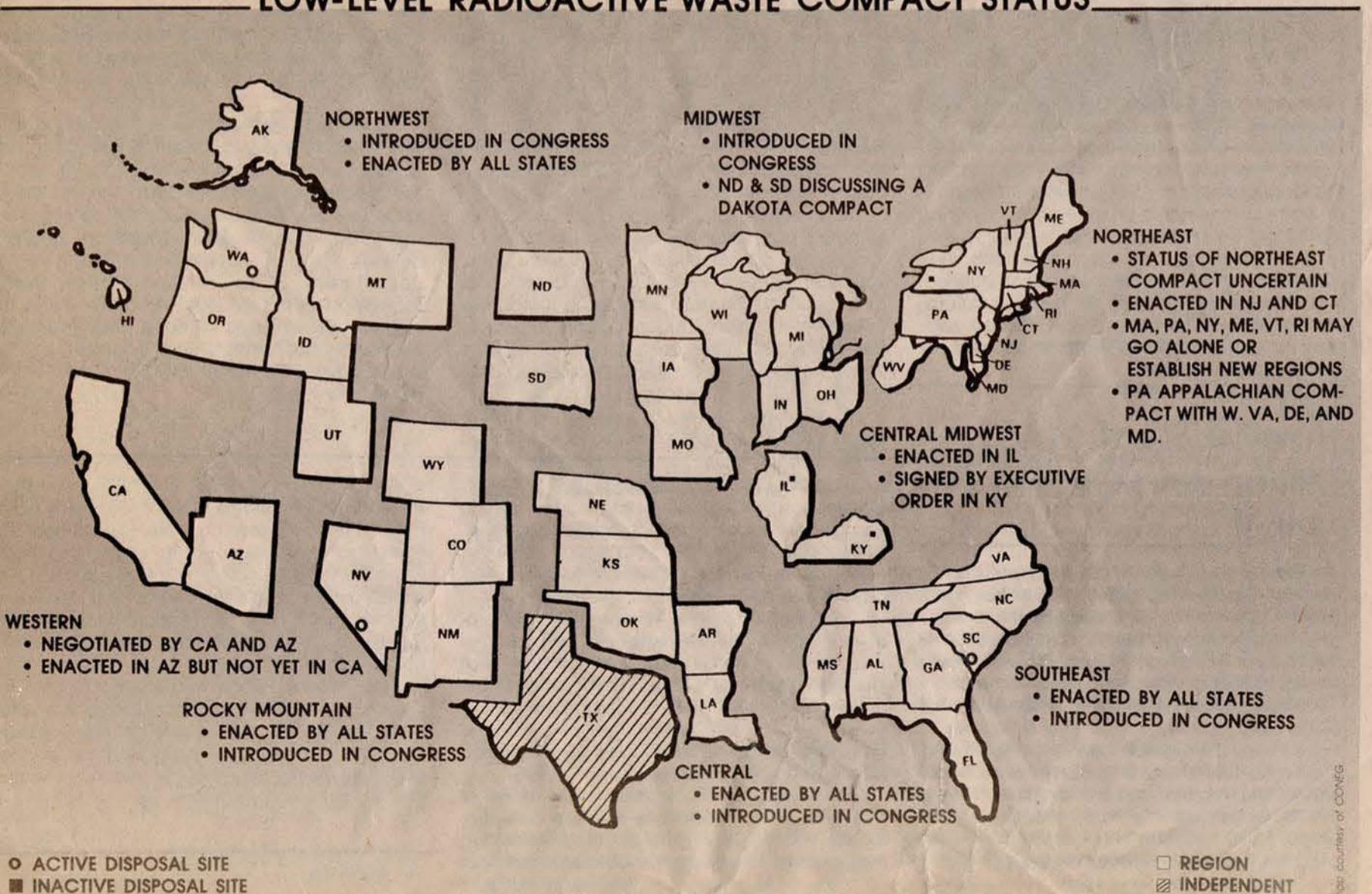
Appalachian Compact Pennsylvania has proposed the new Appalachian Compact, which has been agreed upon by Delaware, Maryland and West Virginia. This means that New Jersey and Connecticut are left holding the bag for the Northeast Compact. But since it stipulates that three states are required for the Northeast Compact to operate, it is in affect back to square one. The other states in the region are waiting to see what happens next. Officials in Vermont and Maine have been negotiating with the utilities for on-site storage of reactor wastes. Utility officials at Vermont Yankee are seriously considering this option. Massachusetts has a law that requires voter approval by both local and state referendum to site a facility in that state. Rhode Island has no reactors and may be able to avoid joining a compact or having a disposal facility by storing medical wastes on-site.



Correction

In *Volume 6 Number 2* we reported on the U.S.S. Sam Rayburn colliding with radioactive waste barrels in the North Atlantic Ocean. Note our error that the Holy Loch dock where the nuclear powered submarine was decontaminated is in Scotland, *not* the southeast corner of England. Thanks to the Scottish Campaign to Resist the Atomic Menace (SCRAM) in Edinburgh for pointing this out.

LOW-LEVEL RADIOACTIVE WASTE COMPACT STATUS



Brookhaven Labs Wants to Send Waste Through New York City

No shipments of nuclear fuel have moved through New York City (NYC), and none will, if NYC residents and elected officials have their way. The message was strong at a hearing called by Queens Borough President Donald Manes on October 15. While the proposed shipments of irradiated fuel from Brookhaven National Laboratory on Long Island to a government facility in Idaho, are on hold, the Queens Borough President gave an opportunity for hundreds of residents to express their outrage at the plans.

The cask planned to be used by the Brookhaven is an old army cask, designed under the Atomic Energy Commission regulations in 1964. The MH-1A is now owned by the Dept. of Energy, but the Nuclear Regulatory Commission has refused to relicense it, claiming there are unresolved safety questions with the cask. *The Waste Paper* is investigating what these safety problems are.

All proposed routes off the Island go through Queens, a Borough of the City, with two million residents. Nine local U.S. Representatives promised Congressional action in the upcoming session. Even "hizzonor, da Mayor," NYC Mayor Koch, made an appearance. It was captured by all television stations and newspapers in the area, except the *New York Times*.

Following the overturning of its transportation safety ordinance, the City engaged the engineering firm of Arthur D. Little to study the alternative of barging Brookhaven's irradiated fuel. To buy time, in what the Mayor called "extortion money," the City paid Brookhaven \$60,000 to construct storage on Long Island (which has not yet been used.)

The AD Little study, completed in November, and recently turned over to the federal Department of Transportation (DOT), shows, not surprisingly, that barging nuclear fuel around the City is safer. The study supports NYS's request to DOT that the preferred route be by water, and that the City's ordinance not be pre-empted. DOT officials are taking the request seriously. Any "arbitrary and capricious" action by DOT will surely be taken back to court.

On the federal level, the NY Congressional delegation has rallied around a promised amendment by Representative Ted Weiss to the Hazardous Materials Transportation Act. The amendment places the burden of proof on DOT to show that safety is improved by pre-empting the local ordinance. As it is now, the burden is on each community to prove that its ordinance should not be pre-empted. ☸

Fact sheets on Brookhaven shipments, their safety impact and nuclear weapons connection, may be ordered from the Sierra Club Radioactive Waste Campaign, 78 Elmwood Avenue, Buffalo, NY 14201. Please enclose \$1 for copying and postage.

How To Steal \$145 Million And Get Away with It

The Nuclear Waste Policy Act signed into law by President Reagan in 1983 may have been a relief to most nuclear utilities in the U.S. since they could now sell their irradiated fuel to the federal government. Most nuclear utilities except Niagara Mohawk in New York State.

Under the new law, a formula was calculated to determine how much the utilities would have to pay the federal government to take the irradiated fuel disposal problem out of their hands. Niagara Mohawk would pay \$45 million in 1985 for its Nine Mile Point I reactor near Oswego, New York, just north of Syracuse. The problem with the \$45 million figure was that in the 1960's the New York State Public Service



Queens Borough President Donald R. Manes (center) speaks as he opens his public hearing on the problems and alternatives to transporting nuclear waste through Queens and other parts of the metropolitan area. Seen at the Borough Hall sessions are: (left to right) Congressmen James H. Scheuer (D-8th C.D. Queens), and Joseph P. Addabbo (D-6th C.D. Queens); Manes; and Congressmen Mario Biaggi (D-19th C.D. Bronx) and Gary L. Ackerman (D-7th C.D. Queens). photo courtesy of the Borough of Queens

TMI Health Effects - Evidence is Growing

Two recent studies of health effects in the Three Mile Island area point to an increased number of cancers, genetic effects and other acute radiation-induced symptoms. This new information came to light at a meeting of scientists organized by the TMI Public Health Fund, the court-ordered settlement with Metropolitan Edison. The meeting, held in Philadelphia November 12 and 13, was closed to the press and the public.

Margorie Aamodt of Coatsville, Penn., reported on the results of a survey conducted in May 1984 in Cumberland County, west of the TMI reactor. Of 110 households surveyed, with 315 residents, twenty have died of cancer. The cancer death rate is 42 times the average in Cumberland County. The age distribution of the sampled population was normal, and no environmental causes other than TMI were uncovered. An unusual number of birth defects was also reported. The area sampled is four to five miles from the plant, but at a higher elevation. The residents of the area tasted a metallic flavor the day of the accident, and a local dentist had 75 X-ray films fogged.

Another researcher, Bruce Molholt, reported on another sample of residents who tasted

iodine or had reddening of the skin. All incidents he reported could be correlated with wind direction at the time of the acute sensation. Hundreds of TMI residents reported this iodine or metallic smell in 1979. Dr. Edward Radford, a University of Pittsburgh epidemiologist, reported that the metallic taste was not unlike that experienced by GI's during atomic bomb explosions. On three A-bomb plane missions, he noticed that crews tasted a metallic flavor as far as 10 miles from the A-bomb range.

While the health survey results show a link with the TMI reactor accident, nuclear industry advocates dispute the findings. Though monitoring data was spotty the day of the accident, large releases of iodine were not detected in significant quantities by radiation sensing devices or in milk samples. As a Pennsylvania Department of Environmental Resources spokesperson put it, "However many curies of iodine were missing, I hope they went to heaven." If not heaven, health studies suggest iodine passed the higher elevations around the TMI reactor. ☸

Commission (PSC) allowed Niagara Mohawk to charge its customers for radioactive waste disposal and determined \$145 million to be the rate. This meant that suddenly Niagara Mohawk owed its customers \$100 million.

The New York State Attorney General proposed that the money be refunded within one year. However the PSC staff recommended that the utility pay only \$75 million back over the course of 5 years. Two PSC judges presiding over the rate case agreed. Furthermore, the PSC gave Niagara Mohawk an \$86.35 million rate increase in the same case.

As it turns out, the fund for the disposal of Nine Mile Point I waste was spent to construct the Nine Mile Point II reactor, whose price tag may exceed \$5 billion. If Niagara Mohawk had kept the \$145 million in a separate account

since 1969, the interest alone could have paid back the customers and the Department of Energy for the disposal of its waste. Note that when the Long Island Lighting Company (LILCO) pulled out on its 18% funding of Nine Mile Point II in February of 1984, Niagara Mohawk immediately jumped in and assumed LILCO's \$9.5 million per month costs.

The Albany Peace and Energy Council is proposing that at the conclusion of the rate case (April 1985) the refund be immediately paid back. The group is proposing a one time end-of-the-winter refund of \$91 million to the utilities' 1.33 million customers. ☸

thanks to Tom Ellis for bringing this scandal to our attention.

Conference Considers International Transportation Network

Transportation of nuclear materials was fresh in people's minds last September as antinuclear activists from twenty countries, including Australia, Japan, the United States, and the nations of Western Europe, met at a conference sponsored by the World Information Service on Energy (WISE) and the Danish antinuclear movement (OOA).

While the conference was being held in Kolding, Denmark, French and Belgian officials were struggling to recover the uranium hexafluoride (UF_6) cargo from the wreck of the *Mont-Louis* in the North Sea off the coast of Belgium. At the request of the conferees, a session on nuclear transport was added to the conference, and the participants of this session agreed to continue to communicate after the conference in order to eventually set up an international network of groups working on transportation. This network would provide a means of transmitting information on shipments rapidly from one country to another, identifying and monitoring the principal international routes of the nuclear fuel cycle, and planning actions along these routes.

The nuclear shipwreck in the North Sea provided a striking example of how much this network is needed. Information about the wreck was initially withheld by the authorities, and conferees at Kolding discovered that the press in each country told a different story of the accident and that the stories conflicted with each other. It was Greenpeace-Paris who suggested to a French reporter that the ship "perhaps" contained UF_6 . According to a French labor union, sailors had been advised by the company that owned the ship, *Compagnie Generale Maritime*, not to disclose its contents. Belgian authorities first announced that the *Mont-Louis* contained only medical supplies. The French remained silent.

Nor was this the only example of international nuclear transport reported at the conference. In some cases, previously unknown links in the nuclear fuel web were reported. There were also filmed reports on two large-scale nuclear transportation actions.

■ In Britain, *the Guardian* discovered that several hundred tons of UF_6 a year are carried from Britain to France and Holland, for enrichment, on Sealink ferries. These are passenger boats which connect with trains to London and major cities on the continent. On the return to Britain by ferry the material has a uranium content of up to 4%, much higher than that of the UF_6 on the *Mont-Louis*.

■ Representatives from Japan sought help in stopping the transport of approximately 250 kilograms of plutonium from France to Japan. This plutonium had started out as irradiated fuel which was brought from Japan to La Hague, France, for reprocessing. The plutonium recovered from reprocessing was to go back to Japan by ship.

Later, the shipment did leave, despite a demonstration planned by Greenpeace and local activists. The plutonium was secretly transferred from La Hague to the harbor (Cherbourg) at night, while the houses of activists were under surveillance. The ship, the *Seishin Maru*, sailed the next day, despite a raging storm. Although the Japanese consider this to be a civilian shipment, the boat was loaded at military docks, and was to be guarded en route by a US military satellite, as well as US and French military ships.

Military escort aside, the ship was ill-equipped to carry such a potentially disastrous cargo. The Japanese ship usually carries sand and gravel, and was hastily fitted only a few months ago with equipment enabling it to communicate with a satellite. It had only one hull and one propulsion system.

The ship arrived in Tokyo (via the Panama Canal) on November 15. It was met at the dock by demonstrators and armed guards. On the same day, it was reported that the Japanese government was considering moving future shipments by air.

■ This summer the ruling Australian Labor Party, which had been opposed to uranium

mining while out of power, voted to allow mining to continue in existing mines and to clear the way for the opening of a huge new mine at Roxby Downs. Greenpeace and other activist groups subsequently picketed a large shipment of yellowcake at a Darwin wharf. With help from union members they delayed its dispatch. The final annoyance for the industry was the discovery, after the vessel with the uranium had left the dock, that members of Greenpeace had stowed away and then climbed the rigging.

■ Last April German activists temporarily blocked roads into the Gorleben area to demonstrate their determination to keep shipments of waste from reaching a proposed storage site. Adopting the name of pre-Saxon settlers in the region, they proclaimed the area the Free Republic of Wendland and issued Wendish passports.

In Denmark, members of the German Greens planned to repeat the blockade when they learned that the actual shipments were moving. They hoped to make the political and social costs of the shipments unacceptably high for the German government. According to recent news reports, the first shipment, dispatched October 8, reached Gorleben thanks to an escort of several dozen police cars, water cannon, and helicopters, which guided the transport vehicles along narrow back roads away from blockaded highways.

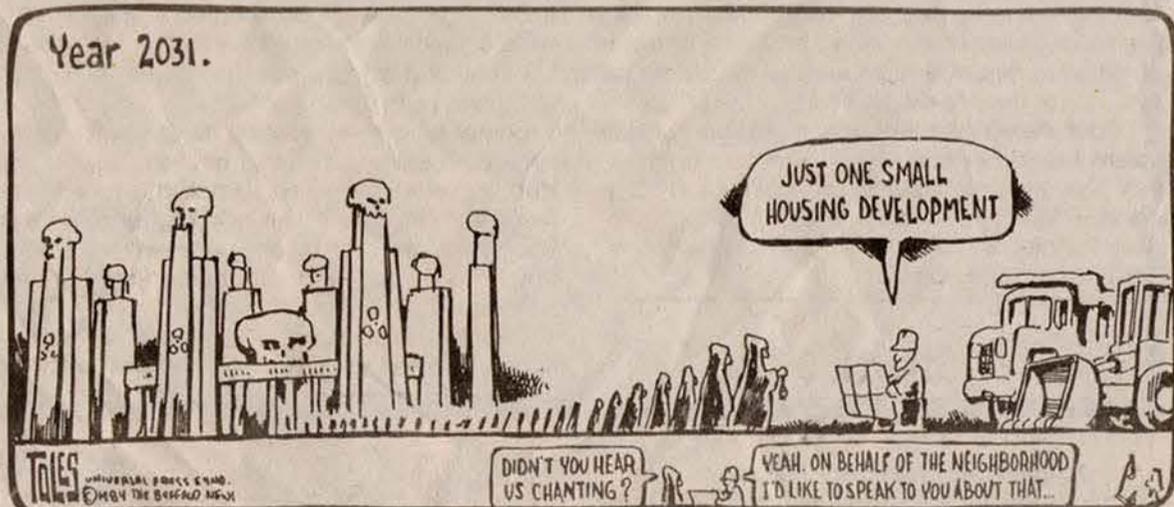
Representatives at the conference agreed that radioactive transportation may well be the Achilles heel of the nuclear industry. The public tends to respond to news about shipments, since vehicles carrying nuclear materials pass near many homes and follow routes used by large numbers of travellers. Transportation offers an opportunity to involve new groups, such as unions and local governments in the

nuclear issue. It can illustrate the international character of the industry and the military/civilian links. It also gives abundant opportunity for antinuclear activities of all types, including direct action, lobbying, and public education.

Nuclear energy worldwide is not suffering the severe setbacks that we see in the US, and armaments, of course, are increasing in the US as well as many other nations. As plutonium comes into wider use and as the transport of spent fuel increases, the danger the public faces from nuclear transport escalates. The transportation issue, like the larger nuclear issue of which it is a part, will not yield to pressure from a single group.

One of the participants in the conference is compiling a manual with background information to facilitate organizing around the transport issue. Miles Goldstick would like to hear from people who have knowledge about shipments crossing international borders. He is collecting the facts of these shipments, including materials and containers, shipping contracts, routes, schedules, shipping companies, regulations, resistance groups and actions, accident scenarios, and preparedness and responsibility for accidents. His address is Uranium Traffic Network, c/o Earth Embassy Box 3183, Vancouver, BC, Canada V6B 3x6. His phone number, for questions, is 1-604-874-4057. ☸

Sources for this article: reports in the French press (*Le Monde*, *Liberation*, *Le Figaro*), *CBC Radio Canada*, and *WISE newsletter*, Mary Bird Davis, a *Kentucky Sierra Club* member, attended the meeting in Denmark and provided us with much of the information in this article.



While the Department of Energy (DOE) spends some of our money to convince us that fear of nuclear power is a mental illness, the same agency is spending more of our tax dollars to figure out ways to warn the next 300 generations about the dangers of nuclear waste. The DOE, in a rare display of vision, is concerned that people years from now will inadvertently wander across one of our generation's radioactive waste dumps. The DOE is pondering a number of methods of warning future generations, the most controversial of which is an "atomic priesthood"-a commission of physicists, experts in radiation sickness, psychologists and others who would establish an "artificially created and nurtured ritual and legend" to produce an "accumulated superstition to shun a certain area permanently."

We have often noticed that DOE personnel have a "holier than thou" attitude, but the notion of a branch of the U.S. government seeking to create a religion points to a cynicism that is frightening, even in 1985. And the DOE has forgotten (or never knew) that many aboriginal people living around the world's uranium deposits held superstitions and taboos about digging in these areas. These taboos meant nothing to the white people who eventually mined there.

STATE OF NEW JERSEY
OFFICE OF THE GOVERNORCN-001
TRENTON
08625

August 2, 1984

Thomas H. Kean
GovernorMr. Nunzio J. Palladino, Chairman
United States Nuclear Regulatory Commission
Matomic Building
1717 H. Street, N.W.
Washington, DC 20555

Dear Mr. Palladino:

As you are no doubt aware, several of the states of the Northeast region, under the auspices of the Coalition of Northeast Governors and consistent with their newly delegated responsibilities under the Federal "Low-Level Radioactive Waste Policy Act" of 1980, prepared a low-level radioactive waste management compact setting forth the terms and conditions for the establishment of a regional disposal facility for the low-level wastes generated within the party states. That compact has been enacted and entered into by New Jersey, Connecticut, Maryland, and Delaware, and is under continuing consideration in a number of our neighboring states, but it has not as yet been submitted to Congress for ratification.

Notwithstanding the progress we have made in transferring responsibility for providing capacity for the disposal of these wastes from Federal to State government, a number of concerns remain which continue to impede our expeditious completion of this process. Some of these issues relate to matters under the jurisdiction of your Commission which we feel must be addressed before the Northeast Interstate Low-Level Radioactive Waste Management Compact is considered for final approval. In the course of time, we shall no doubt be in contact with your Commission on a wide variety of problems which we feel must be solved in order for us to carry out our responsibilities under the federal act and to our citizens, but I shall address myself in this letter to only one of them.

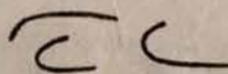
Chief among the remaining concerns is that brought to my attention by a number of responsible scientists and virtually all of the recognized environmental groups in our State and, indeed, in the Northeast region, i.e. that, absent any change in Federal law or regulation in this area, a regional facility may well be obligated to accept for disposal some wastes the radiological hazards of which extend beyond the monitored life of the proposed facility. More specifically, some of the wastes that fall within the purview of "low-level" as defined in the Compact could release potentially harmful levels of radioactivity beyond the 100-year institutional control period established by NRC regulation.

The problem ultimately derives from the generality of the definition of "low-level waste" in the Compact, a definition adopted verbatim from the Federal act. Indeed it is not really a definition at all so much as a delineation or a demarcation, since it essentially identifies a "low-level" waste that which is not "high-level" waste. As a matter of substance, such an ambiguous category presents the state with the difficult task of designing a disposal technology which would offer optimal protection of the public health and safety. As a matter of equity, such a characterization represents, in the minds of many, a transfer of responsibility not merely for what are generally regarded as relatively innocuous materials, but also for those that are highly radioactive, a disposal technology for which the nation has been struggling to develop for the last quarter of a century.

I respectfully call upon your Commission to institute a thorough and comprehensive review of the radioactive waste classification system; to reevaluate the adequacy of this system, especially as it applies to the regional low-level compacts; and to refine the categories so as to assure that the total hazard of materials--the product of the half-life of the materials, their concentration and volume, and their non-radiological hazard--does not exceed the capacity of the systems in which they are disposed to isolate them permanently from human contact. Refinement of the regulations governing this issue is of paramount importance to put the environmental and health threats posed by these materials behind us. Efforts of individual states or compacts to address this problem unilaterally will serve only to disrupt and delay the full and effective implementation of the mandate of Congress.

I urge your prompt attention to this matter and pledge whatever assistance you feel New Jersey and its fellow party states may provide.

Sincerely,


Thomas H. Kean
Governor

More Letters Needed Governor Kean's letter brought a six-page response by Nunzio Palladino, chairman of the Nuclear Regulatory Commission (NRC) and the Division of Waste Management staff. While the NRC quickly dismissed many of Governor Kean's concerns, the response provided some interesting information for low-level waste activists.

While the NRC has no intention of immediately reevaluating its entire radioactive waste classification system, it acknowledges a problem with low-level waste exceeding Classes A, B, and C. Palladino admitted that a "different disposal method may be required." He also noted that the Division of Waste Management is reevaluating the disposal of waste which exceed Class B and C reviewing the definition of high-level radioactive waste. This may clarify responsibilities for waste exceeding Class C.

Letters from other governors, state legislators, legislative committees, Attorney's General or Congresspersons similar to Governor Kean's letter are needed to Chairman Palladino. If the NRC is to consider redefining some Class B and C low-level waste as high-level, pressure must come from state and federal officials. Activists should urge their public officials to write Nunzio Palladino.

If you would like the full response to Governor Kean's letter, send \$1 to the Sierra Club Radioactive Waste Campaign, 78 Elmwood Avenue, Buffalo, New York 14201.

Chalk River
Shipments
Move

There was plenty of excitement on the Thousand Island Bridge this Fall as demonstrations, delays, and a threat to a local radio station marked the resumption of shipments of irradiated fuel from Chalk River, Ontario, to Savannah River, South Carolina.

The bridge, which spans the St. Lawrence River to join the United States and Canada, was the focal point for opposition to a series of shipments that have been banned and rerouted repeatedly over the years and are seen by many to be in violation of international treaty.

The irradiated fuel was being shipped from the Canadian government's nuclear research reactor in Chalk River, Ontario (200 miles southwest of Ottawa) to the Savannah River Plant (SRP) near Aiken, SC, where the uranium is recovered and recycled into reactors that produce plutonium and tritium for nuclear warheads.

Although the exact number and route of the shipments have not been officially revealed, the shipments are presumed to have followed a route in the US as follows: over the Thousand Island Bridge and south on I-81 through the states of New York, Pennsylvania, Maryland, Virginia, and Tennessee; east on I-40 through Asheville, NC, and then southeast on I-26 through Spartansburg, SC, where they follow SC 121 south to SC 16, and into the SRP. Shipments were sited crossing the bridge on September 12, 19, and 27, as well as October 3, 10, and 16. Additional shipments may have taken place on October 24 and 31.

American opposition to the shipments has focused on the potential danger to the public and the environment. In 1980-1982, when these shipments were attempted, worried citizens pushed state and local authorities to ban the shipments in New York, Michigan, and Vermont. (See "Atoms For Peace Come Home" in Vol.4, No.4 of *the Waste Paper*, Fall 1982) The shipments were tied up until July of this year, when Nuclear Assurance Company, the shipping company, struck a deal with the Thousand Island Bridge Authority. The Bridge Authority was reassured by the US Department of Energy that in case of accident the shipments were insured for \$500 million and carried \$10 million in insurance from the shipping company. Nuclear Assurance Co. was issued a temporary permit to move across the bridge.

Save the River (STR), an environmental group based in Clayton, NY, spearheaded the US opposition to the shipments. Caught by surprise by the first two shipments, the group then concentrated on building participation in the series of all-night vigils that were staged to draw attention to each shipment. At the height of the effort, there were a total of 150 people keeping watch along the route, stationed at both sides of the bridge, and at Watertown, Syracuse and Cortland, New York. On the bridge itself, protesters wore white coveralls and carried "glow-sticks," long cylindrical flashlights used by emergency personnel to direct traffic during roadside accidents. At other locations people carried candles, hoping to "shed some light on the veil of secrecy surrounding the shipments," as one participant put it.

Vaguely Reminiscent of You-Know-What
The third shipment, scheduled for September 25, was delayed when a handwritten note was found at a nearby radio station. The note, signed by the "Rosebud Revolutionary Task Force -9" and left by Richard Booth, 31, of Verona, NY, said that if the shipment was not stopped, "the bridge and everything on it" would be destroyed. Booth had been known by sight at both the radio station and Save the River. Radio station workers considered him to be harmless, but noted that he had once asked to borrow a Mastercard "to fly 100 people out to California to see a Grateful Dead concert." STR members notified the sheriff as soon as they

continued on page 7

One Chance...

continued from page 1

It's no wonder that Monroe County emergency personnel are squeamish about the proposed nuclear shipments from West Valley to Oyster Creek that pass through Stroudsburg, Pennsylvania. Their thoughts go back to the unlikely truck explosion of twenty years ago that took three of their finest as they listen to the confident assurances of Metropolitan Edison. *Didn't they say the chances of a TMI nuclear accident were once in 17,000 years?* ☸

Chalk River Shipments Move . . .

continued from page 6

heard of the incident. Booth was arrested on charges of aggravated harassment and taken to the Oneida County Jail.

Opposition in Canada Canadians were also quick to show their opposition to the shipments. In Kingston, Ontario, members of Actions For Social Change (ASC), a group working on many nuclear issues, watched for the shipments and launched a companion vigil on the Canadian side of the bridge. Canadian opposition to the shipments has centered on the fact that uranium recovered from the Chalk River shipments goes into US nuclear weapons production. This transaction is in direct violation of the Nuclear Cooperation Agreement between the US and Canada, dating back to 1955, which prohibits the use of nuclear materials supplied by Canada for military purposes. The Canadian Coalition for Nuclear Responsibility (CCNR) petitioned the Prime Minister to halt the shipments in the interest of maintaining Canada's integrity as a nation pursuing non-proliferation of nuclear weapons.

What's Next? ASC spokesperson Pamela Cross told us that she expects the shipments to resume in the spring and that Canadian protesters will be out in large numbers. "We're not prepared to limit ourselves to polite vigils against these shipments that are illegal, immoral, and in violation of international law" said Cross.

In the US, Save The River is looking for ways to involve more of the community in the opposition to the shipments. "We realize that this kind of action is a hard thing for most people to do — to give up a night's sleep and leave your family to go stand by the road all night with a candle in your hand," said Robert Reed, STR coordinator. With this in mind, STR is conducting a door-to-door canvas, asking people to sign on to a statement that includes opposition to the Chalk River shipments. "We are finding that 70% of the people we talk to oppose the shipments," Reed reported. STR hopes to thus prove to local officials that their constituents expect them to act on this issue. NYS Attorney General Robert Abrams has already promised to come to the aid of any local government that objects to the shipments. He should have his work cut out for him. On November 20, the federal Department of Transportation overthrew seven local and state safety ordinances, as unreasonably restricting interstate commerce.

Groups on both sides of the border welcome help from local people who want to help fight these shipments. There is also a need for activists further south on the route, particularly in New York and Pennsylvania, a corridor for many shipments of radioactive material. If you live along the route, contact your local fire departments and emergency personnel and ask them if they know about the shipments and how they are prepared to handle an accident involving highly radioactive substances. Canadians should write to Prime Minister John Mulroney, objecting to the use of Canadian resources to make materials for the US weapons program. ☸

A 6-page Campaign fact sheet on the Chalk River shipments is available. Send \$1 to the Campaign at 78 Elmwood Ave., Buffalo, NY, 14201.

The Game Of Truck Accident Probabilities Everyone Can Play

Probability Class VIII Nuclear Truck Accident in City*

truck accident rate	1.6×10^{-6} accts/km
fractional occurrence class VIII accidents	1.5×10^{-5}
fraction, class VIII accidents in city	0.05
distance per shipment	2350 km

odds: 3 out of a billion that an irradiated fuel shipment would have a class VIII accident in a city

Probability of Truck Explosion Killing Six Persons and Releasing 150 Snakes

frequency truck explosion	1/20 years
probability truck explosion killing six persons	1/10
probability snake farm having 150 poisonous snakes	1/100
fraction of total mileage by snake farms	25×10^{-6}

probability of truck explosion killing six persons and releasing 150 poisonous snakes: 1/4 in a billion years

*Data from NUREG-0170, Environmental Statement on the Transportation of Radioactive Material by Air and Other Modes, Nuclear Regulatory Commission, Washington D.C., December 1977.

Important New Book On Radiation Health Effects

How much does an X-ray increase my chances of getting cancer? If my job exposes me to xxx millirems per year whole body dose, will it affect my fetus? What is the experimental basis for present health standards? Detailed calculations of the risks of cancer, genetic defects, congenital malformations and deaths due to ionizing radiation, together with descriptive text and references, are now available in a new book by Dr. Rosalie Bertell.

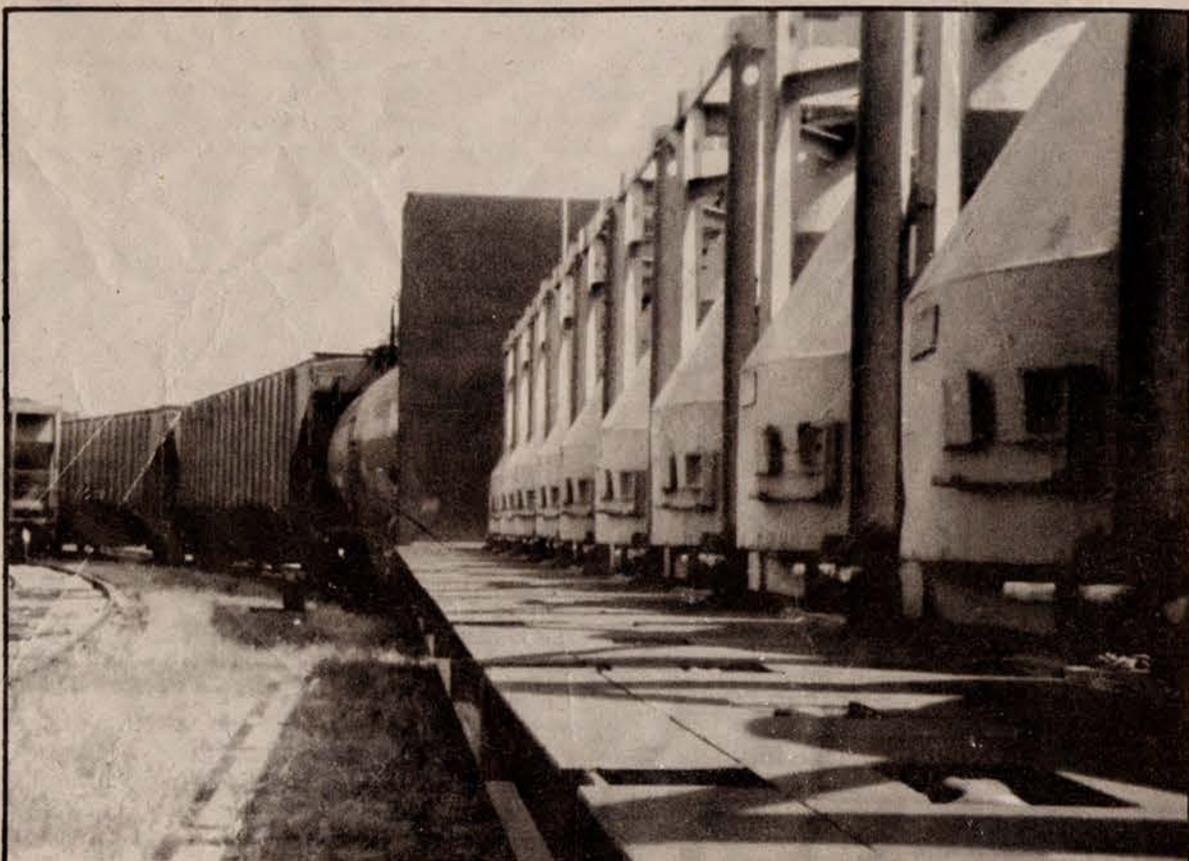
Handbook For Estimating The Health Effects Of Exposure To Ionizing Radiation is now available for \$15 from Ministry of Concern for Public Health, 5495 Main Street, Suite 147, Buffalo, NY 14221. This is a detailed, technical book by a trusted author that packs a tremendous amount of information in its 92 pages. We highly recommend it.

Manual Shelved

The Federal Emergency Management Agency (FEMA) has pulled a \$90,000 training manual on how to deal with radiation accidents off the shelves. FEMA was responding to five other federal agencies which said the manual was inaccurate and could endanger victims.

The manual instructs emergency personnel responding to a nuclear waste spill to suit up with protective clothing and self-contained breathing equipment, conduct a radiation survey and secure the area with barriers before aiding a victim. According to the *Washington Post*, one federal official said "by then the guy is dead."

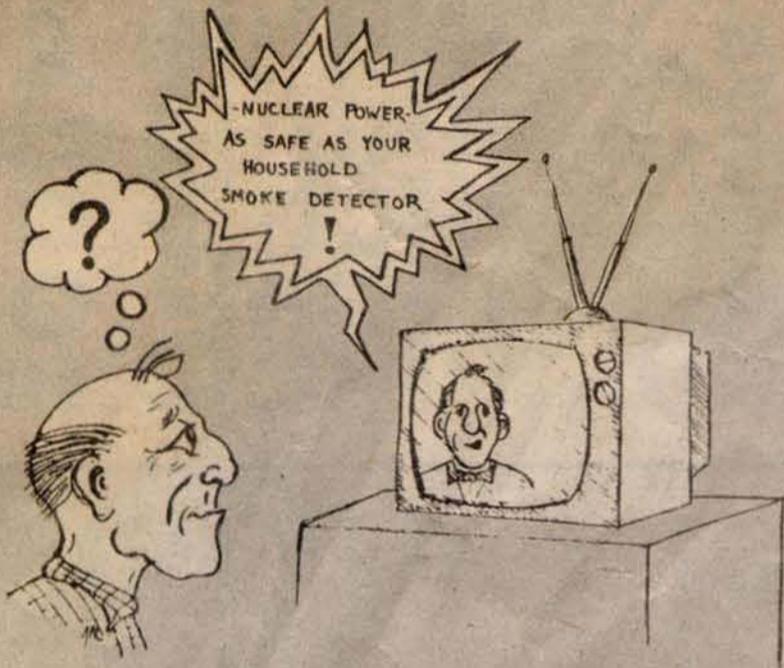
Bradford Communications of Greenbelt, Maryland was contracted to prepare the manual. This incident reflects not only the difficulty in responding to a nuclear waste accident, but also the inadequacies of the so-called "experts" at FEMA.



These odd shaped containers are carrying uranium trioxide bound for an enrichment plant in Fernald, Ohio. The uranium, which is slightly enriched, is used in weapons production. The photo was taken in a railroad yard in Richmond, Indiana by community activists. Interesting enough, the citizens were followed home the day they picked up their photos at K-Mart. photo

by Dale Bolger

Curious about whether pro-nuclear advertisements on television and the radio are telling the truth about nuclear power and nuclear waste?



Interested in learning the facts about the hazards of nuclear reactors and nuclear waste?

graphics by Jim Chrisfield

Then subscribe to *the Waste Paper*, the world's only quarterly on radioactive waste — exclusive interviews, investigative research and reporting, citizens' battles and more! We've got the facts and the figures for you. Only \$8 for this important quarterly.

- Enclosed is \$8 for a year's subscription to *the Waste Paper*, or \$12 for two years.
- I want to stop generating nuclear waste. Here is my contribution to the Campaign.
- I would like to volunteer time for the Campaign. I can help with research, clerical, public speaking, writing or visual arts. (Please circle your interest.)

Clip and mail to: The Sierra Club Radioactive Waste Campaign, 78 Elmwood Avenue, Buffalo, New York 14201.

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