

sierra club
radioactive waste
campaign

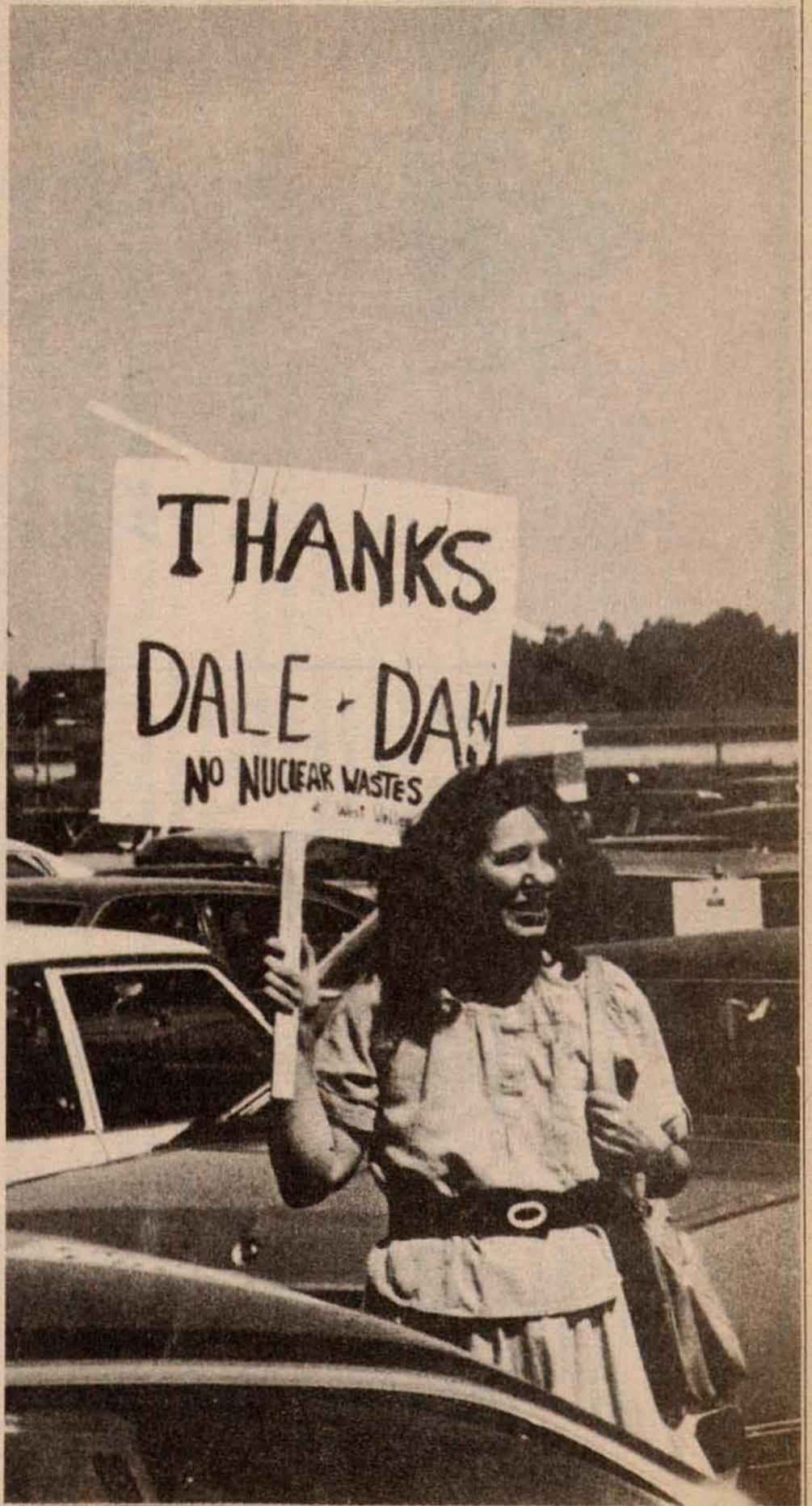
Late Summer 1980

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SHIPMENT

EXCLUSIVE
PHOTOS

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Con Ed — Vitro Corporation of the Future?

In the year 2080, the town of Buchanan, N.Y., home of the Indian Point reactors, has become densely populated. The Indian Point site, comprising 45% of the town's 800 plus acres, is like a ghost town. Eerie, rusting metal frames, abandoned roads, cracked concrete buildings, signs of an earlier vital life, have no meaning to children who use the partially vacant land for 21st century games. As the town grew, less and less open land remained for playgrounds so the area was invaded by kids.

The site and buildings long ago were transferred to the Federal government, who fenced and guarded the property. But over time and under the press of other Federal priorities, less money remained for the security and maintenance. The fences broke down and latches on gates were jimmied open. The property was removed from the town tax rolls decades before when it was transferred to the Federal government. Now the town would like to develop the site and has pressured Congress to release the site for unrestricted use. But this means "cleaning up the site" — tearing down the remaining massive, stone mausoleum-like buildings.

The company who built this Stonehenge, Con Edison, long since disappeared into corporate oblivion. No money remained to dismantle the odd-dome shaped structures. The buildings are what is left of the "Christmas present" Con Edison promised Buchanan 1 1/4 centuries before when the future seemed considerably brighter.

Unknown to the children at play, the three harmless-looking buildings are still radioactive. The structures are "hot" and will remain so for many hundreds of thousands of years. One building, formerly called Indian Point 1, was last useful to society 106 years ago.

A Bit of History

On November 29, 1956, a "sort of Christmas present" is what Louis Scofield, vice president of Con Ed's Westchester County activities, called IP-1 at a meeting of the Westchester County Association in the Westchester Country Club. The president of the association, grateful for the X-mas gift, told the membership IP-1 was needed because of the Suez crisis in the Middle East. Even back in 1956, the "we-need-nuclear-to-replace-Arab oil" argument was popular among the business set.

The Atomic Energy Commission (AEC) had already approved the construction permit for the plant on May 4, 1956. The first nuclear power plant in New York was

enthusiastic front page news for *The New York Times*. The IP-1 plant, with an estimated 40 year lifetime, would produce 236 MW and go on-line October 1, 1960. As it turned out, the plant would go on-line three years late, and would terminate operations 28 years early.

The reactor itself would be built by Babcock and Wilcox of Three Mile Island notoriety. Vitro Corporation, a corporation as unknown by the general public in 1980 as Con Edison will be in 2080, was the general contractor, responsible for the design and engineering portions.

The estimated cost back in 1956 was \$55 million. By 1958, two short years later, costs zoomed to \$90 million. When the plant "went critical" in 1962, the costs hit \$121 million, excluding nuclear fuel costs. Despite the more than doubling of plant costs, nobody blamed "environmentalists" or "regulations". The increased costs were actually welcomed by the Town of Buchanan, whose tax base was only \$3 1/4 million at the time. Because of the plant, the annual village spending for extra roads, policemen and services continued to increase. Still, there was enough fat to lower town taxes and, in 1960, to give all town personnel a salary increase.

On May 3, 1960, the 230-ton reactor vessel arrived. It was 35 feet long, 11 feet in diameter, with 7 inch thick steel walls. Construction proceeded on the reactor, but it was clear the original start-up date, October 1, 1960, would not be met. The delayed start-up was no surprise, but the increasing cost for electricity startled the business community. James Fairman, a Con Ed VP, announced that the cost of IP electricity would be double that of conventional coal plants. He blamed the higher costs on the experimental nature of the facility and promised that one day "atomic fuels" would be cheaper than coal. Many years later, oblivious to previous Con Ed statements, company President Charles Luce would say that IP saved Con Ed customers \$90 million ("A Report to the People of New York City and Westchester County", Con Ed, Dec. 31, 1974). This Con Ed allegation was later refuted by the Council on Economic Priorities ("Responding to Con Edison: An Analysis of the 1974 Costs of Indian Point and Alternatives", by Charles Komanoff, CEP, Aug. 25, 1975).

"Outmoded"

The IP-1 plant was to be a curious hybrid nuclear/oil plant. The atomic core would preheat the steam to about 450 degrees F. Conventional oil-fired superheaters would

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Monitors check for radiation in Canonsburg, Pa. cemetery.

then heat the steam to 1000 degrees F. The high construction costs of a nuclear facility were compounded by the high operating costs of oil. In fact, the hybrid plant, according to Con Ed engineers, was "outmoded" before it began operating. Astoundingly, the plant did not have an emergency core cooling system to cool the reactor in case the normal coolant was cut off.

Finally, at 5:42 on August 2, 1962, the "Christmas present" was lit up. The plant "went critical", i.e., control rods were raised and neutrons began to bombard and fission uranium-235. The fissioning of U-235 would produce more neutrons, enough to sustain a nuclear reaction, or achieve criticality. Not all neutrons would strike U-235. Some would bombard the reactor vessel or parts of the reactor core, making these parts also radioactive.

The news about IP-1 criticality was banner headlines in the newspapers. By February 1, 1963, IP-1 achieved full power output of 275 MW. The plant would now operate for only 11+ years at 45% capacity. In 1974, the announcement of the shut down of IP-1 appeared as a small paragraph in an article on the back pages of *The New York Times* describing a PSC audit of Con Ed books. The reactor was to close down temporarily for maintenance and boiler repairs. It was never to re-open. There were no headlines now.

The defunct reactor sat ignored until the Union of Concerned Scientists called for its decommissioning six years later. On June 19, 1980, the Nuclear Regulatory

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A pile of uncovered radioactively contaminated earth lined with bales of hay at the Middlesex, NJ waste dump site. In the background is the former uranium sampling plant.

Plastic Baggies

After years of frustrating negotiation between state and federal officials the "clean up" of the Middlesex, N.J. radioactive waste dump has finally begun. In the hot summer sun, bulldozers and backhoes are at work at the old plant that was used as a uranium sampling center for the Manhattan Project during World War II. At the site, a giant cone of radioactively contaminated soil is piled up in one corner

(see photo). Pipes are being dug up and an asphalt pad prepared.

But the flurry of activity on the old contaminated site located in suburban New Jersey, 7 miles northwest of New Brunswick, has angered local residents who are now trying to stop the "clean up". Local citizens feel that the proposed clean up is poorly designed and will be sloppily implemented. After all, they argue, the site

has already been "decontaminated" twice, once in 1950 and again in 1967. And still only thirteen years later the site is not safe and must be decontaminated again.

Is this decontamination effort going to be any more successful than those earlier efforts? Will the clean up program, in fact, improve public health and safety of the town of Middlesex? Or will residents be exposed to airborne radioactive dust as the material is dug up at certain locations and relocated at others — to await another digging up before being transported to a permanent federal repository? What will happen to radioactive dirt on the site during rain and windstorms? These are just a few of the questions that increasingly concern Middlesex residents.

Hay bales

The first actions of National Lead of Ohio, the contractor responsible for the clean up, have not reassured residents worried by the prospect of contamination of air and water. The pile of radioactive soil piled up on the site in June was encircled by bales of hay. This wall of straw would supposedly absorb any contaminated runoff from the pile during a rainstorm. And rainstorms in this region are frequent. The hay bale solution did not inspire confidence. In the event of a storm, it was obvious that the contaminated soil would be washed past the puny straw barrier and carried into a nearby drainage ditch that feeds into the Raritan water system. The hay bale approach was about as inspiring as the plastic baggie storage

scheme developed by NLO engineers.

The proposed clean up scheme for the summer of 1980 involved digging up and relocating contaminated soil from two locations each about 1/2 mile from the old uranium sampling plant. Apparently, just as at Grand Junction, Colorado where contaminated uranium mill tailings were mixed with concrete to build homes, here some of the contaminated soil from the plant had been used by unsuspecting residents for landfill. Over 2200 cubic yards would be dug up from the rectory of the Church of Our Lady of Mount Virgin and another 500 cubic yards from a private home.

The contaminated material would be transported back to the old sampling plant and placed on an asphalt pad. A plastic liner would be placed on the pad, then after dumping the contaminated material onto the plastic, it would be folded up and around the soil pile, somewhat like a pillow. Two feet of soil would be placed on top of the pillow. Nearby trenches would supposedly catch runoff from the plastic pillow and wells would register any migration of contaminated water off the pad.

The plastic baggie concept which is also being promoted by NLO and the Department of Energy at another Manhattan Project radioactive waste dump in Lewiston, N.Y. (see Spring, 1980 *Waste Paper*, "The Legacy of the Bomb") was received with considerable skepticism in

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West Valley Update

On June 18, Governor Hugh Carey flew to Buffalo, New York to sign into law the Temporary Waste Siting law, better known as the Walsh-Volker bill. The bill signing culminated more than two years of effort by the Sierra Club and other public interest groups. The legislation would take decisions regarding the siting of an AFR (away-from-reactor storage facility for spent nuclear fuel) at West Valley out of the Executive Chamber and set up a specific process for input from citizens and the legislature. The bill, the first of its kind in the country, establishes an important precedent in terms of spelling out the involvement of the state in what has previously been conceived of as a federal decision. The hard-earned victory is due to the steady citizen pressure, countless letters and phone calls to Governor Carey's office and to the legislature. Hurrah for us.

Specifically, the bill which is named after its two prime sponsors, Senator Dale Volker and Assemblyman Daniel Walsh, calls for the establishment of a five member board that will commission studies and hold public hearings on a proposed AFR at West Valley. A \$300,000 application fee by the agency or operator intending to open the site will cover the expenses of this process. A series of excellent questions to be examined such as — is the project in the public interest? and what will be the decommissioning costs? — are carefully spelled out. As the bill was originally written, the siting board was to consist of two members appointed by the governor (Head of Department of Environmental Conservation and of the Department of Health) and two members appointed by the legislature. Despite the fact that the Governor had been consulted at the time of the bill writing and had accepted this two appointee concept, in June, as the legislature was headed for recess, the Governor notified bill sponsors Walsh and Volker that he would veto the bill unless a third gubernatorial appointee was added to the board.

Since the bill had passed both the Assembly and the Senate unanimously, citizen activists pressed the bill sponsors to stand firm, accept a veto and go for an override. But, as the legislature rushed to recess neither Walsh nor Volker wanted to risk a last-minute veto override fight. The compromise was made and a third gubernatorial appointee was tacked onto the bill — this one to be selected from the

judicial district in which the AFR facility would be located.

Lundine legislation

While Albany was addressing the AFR issue, the U.S. congress moved forward on a bill to initiate the solidification of the high level liquid wastes at West Valley. In Spring of 1979, a \$5 million authorization for the solidification project was added to the Department of Energy (DOE) authorization bill but since the DOE authorization never got out of committee because of disagreements over the Clinch River Breeder Reactor, the West Valley section also died. In 1980, to avoid this problem, the \$5 million appropriation was sponsored by Congressman Stanley Lundine and Senator Daniel Moynihan as a separate piece of legislation. From our perspective, the 1980 bill is an improvement over last year's in that it calls for Nuclear Regulatory Commission (NRC) licensing of the process (an excellent opportunity for citizen input) instead of NRC consultation which was specified in the 1979 bill.

There are still problems with the bill, however. One is that the non-Federal share of clean-up expenses is limited to 10%. We feel that this is too low considering the heavy moral debt owned by Getty Oil, the parent company to Nuclear Fuel Services that operated the site. Furthermore, the 1981 version includes a disturbing amendment added on by Senator James McClure of Idaho, at the last minute. This amendment calls for such "other activities" at the site that would be in the interest of a "national waste management" program. The vague "other activity" wording seems to leave open the door for various national research and demonstration projects and possibly, an AFR, at the site. The position of Congressman Lundine and the DOE is that the wording does not "significantly change the major objectives of the original legislation".

Despite Congressman Lundine's oft repeated assertion (see Secret Deal) that West Valley is a "distant third" choice as an AFR site, DOE continues to act as if the contrary is the case. In May, 1980, the Radioactive Waste Campaign learned that Argonne Laboratories and Sandia Laboratories were working on an environmental impact statement (EIS) for an AFR, with field research at West Valley. A howl of protest rose from citizens around the state. DOE quickly claimed



The Waste Paper van filled, office manager Judith McDonnell, and driver Michael Gilbert, smile pretty for the camera.

that the only work being conducted was on a generic eis, not on a site specific eis. However, in June, James Fiore of DOE told the Waste Paper that a notice of intent to execute site-specific studies would be published in July with public comment to follow. West Valley, N.Y., Barnwell, S.C. and Morris, Illinois are expected to be the sites chosen by Argonne Laboratories. DOE has no congressional authority for this eis project.

Meanwhile, Argonne labs is continuing work on an eis on the high level waste solidification project at West Valley. A scoping hearing on this eis was held on January 7, 1980.

The draft impact statement is due to be finished on December 31, 1980 though, supposedly the final selection of a solidification technology will not be made until 1983-84.

Advisory Board

On July 1, 1980 Argonne appointed a group of "experts" to function as a "senior technical consulting board" to help select the method by which the waste will be solidified. The board will also give, according to Argonne, "special attention" to health and safety of the residents in the West Valley region.

The composition of the six-member board is outrageous — a clear reflection of the biases that have been dominant in DOE since the onset of the West Valley project. The agency bias towards glassification as the most appropriate solidification process is buttressed by inclusion of a Corning Glass representative. Several pro-nuclear zealots who have advocated re-opening the burial ground are also included such as Dr. Wen-Yong Chon, Director of the nuclear reactor at SUNY, Buffalo and Dr. Robert

Ryan, Director of Office of Radiation and Nuclear Safety at Rensselaer Polytechnic Institute. Scientific and medical experts with years of West Valley experience such as Dr. Marvin Resnikoff and Dr. Rosalie Bertell have been carefully excluded from the panel. Waste Paper's readers are urged to send letters of protest regarding the board's composition immediately to Senator Daniel Moynihan, U.S. Senate, Washington, D.C. 20515.

Agreement to open burial ground?

One other storm cloud on the horizon is that the new liquid waste solidification may involve an agreement by New York State to re-open the burial ground at West Valley. In a Spring 1980 meeting, Congressman Lundine who represents the West Valley district, warned that a burial ground re-opening was in the offing. Needless to say, the Sierra Club and other activists are adamant that the West Valley burial ground with its history of erosion and water accumulation in the trenches cannot be re-opened. But the argument to re-open still has appeal to state authorities that are looking for some means of generating revenue to cover high maintenance costs expected at the site for several hundred years.

NYSERDA inactivity

The Sierra Club Radioactive Waste Campaign believes that there is an alternative means of generating funds for site clean-up — and a more acceptable one than dirtying-up the site further and pushing the problem into the next decade. For over a year, the Radioactive Waste Campaign has been trying to get the

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the Waste Paper

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Special thanks to Brent Scott for photographic work. Also much thanks and appreciation to Linda Pelino and University Press for their time and patience.

Cover Photo: Carol Mongerson of the Coalition on West Valley Nuclear Waste says thanks at Buffalo airport as Governor Carey signs Walsh/Volker bill.

Chalk River

In dozens of communities in New York State, the Chalk River shipments and the nuclear transport controversy is forcing citizens and politicians to examine fundamental ethical and economic issues.

The controversy is over 14 shipments of spent, irradiated nuclear fuel from the Chalk River reactor in Ontario, Canada destined for Savannah River, South Carolina where the material is reprocessed. In the last six months, communities throughout New York State have passed bans or restrictions because of the weekly shipments that began in mid-April. Though all of the shipments have crossed the state in 1980, the issue is as alive as ever, and more shipments are due in 1981. More and more citizens are asking why must the United States take Canada's waste, and why now?

In 1954, the U.S. congress amended the Atomic Energy Act of 1946 to provide for the sharing of atomic energy information and materials with foreign countries. This was popularly known as the Atoms for Peace program. In 1968, a treaty for Nuclear Non-Proliferation was drafted to prevent the diversion of nuclear materials into weapons. The 1968 treaty, by requiring the return of the spent fuel to the United States, would supposedly prevent the diversion. It is because of these agreements that Canada, which receives 93% enriched Uranium-235 for its research reactors from the U.S., must return the spent fuel (which still contains bomb-grade uranium) to the U.S. The fuel is reprocessed and monetary credit for any retrieved U-235 is given to Canada. The Chalk River shipments have been made since 1960 at the rate of about

5 — 10 shipments a year. Accidents, which led to radiation exposures, took place in 1960 and 1962.

But, in 1979, the shipments were halted by the Nuclear Regulatory Commission so that new guidelines for shipping spent fuel could be developed and implemented. The new rules published at the end of 1979 included bypassing cities of 100,000, unless no alternative route is available. In this case, an armed escort would be required to accompany the shipment through the populated area.

If large cities had to be avoided and if the shipment had to have armed escorts, communities began to wonder just how safe this cargo was. And besides, if it was too hazardous for a large city, why should it be foisted on a smaller, rural community? Somehow something had gone very wrong if a by-product of the electricity used to run toasters and vacuum cleaners was a police-escorted 25-ton truck of radioactive waste coming down Main St., U.S.A.

The pause in the Chalk River shipments in 1979 also happened to coincide with the year of Three Mile Island. The severe accident at the Harrisburg reactor had raised the consciousness of policemen, firemen, health department officials and county officials across the country regarding the problems of adequate emergency planning. And New York State was no exception. If communities were not ready for an accident at a reactor fixed in one place, how could they be ready for an accident involving fuel moving all over the highways and rails?

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Secret Deal

In Spring 1979, reports of a "deal" between the Department of Energy and NYSERDA chairman James Larocca broke in the press. The newstories stated that there was a linkage between appropriation of federal monies for the clean-up of the high-level waste tank at West Valley and an agreement by New York State to accept more wastes at the contaminated site. The newsleak precipitated many an outraged editorial in the media and bitter criticism by public interest and environmental groups. Apparently surprised by the hostile reaction, every politician between Albany and Washington vehemently denied that any agreement had been reached.

Some of the comments by officials in 1979 are repeated here. James Larocca told the *Buffalo Evening News* on March 22 that the agreement in principle did not exist "on paper". The NYSERDA chairman stated it was only an oral pact. Assemblyman Daniel Walsh said to the news, "I talked to Lundine (Congressman Stanley

Lundine) and he told me the Energy Department knows nothing officially about any agreement, in principle or otherwise." Senator Daniel Moynihan said the details of the agreement had not yet been worked out.

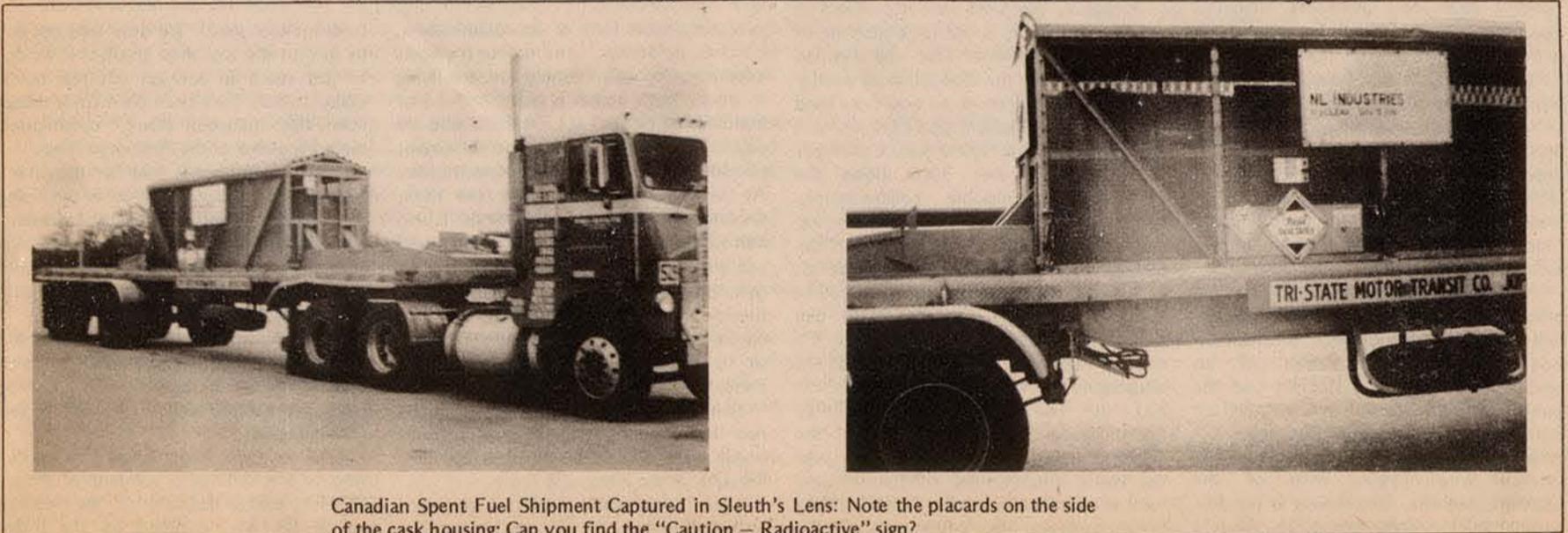
Congressman Lundine almost a year later on February 13, 1980 when West Valley was again mentioned as an AFR site commented, "I think West Valley is clearly a third choice in their priorities" and again on March 1, 1980 was quoted in the *Courier Express*, "I still believe the possibility of West Valley being used for an AFR site is unlikely."

Just how non-existent, the oral not-on-paper pact was, is revealed in the recently released General Accounting Office report on West Valley. The report released on June 6, 1980, "Status of Efforts to Clean Up the Shut-down Western New York Nuclear Service Center", EMD-80-69, included the full text of the 1979 Schlesinger/Larocca agreement negotiated by Senator Moynihan. The

agreement was very detailed. It included two paragraphs that indicate that James Larocca, Daniel Walsh, Stanley Lundine and Daniel Moynihan were all badly misinformed when they poo-pooed any agreement regarding new wastes coming to the site or they were deliberately misleading New York State voters.

Paragraph two of the agreement states, "The spent fuel storage pool for the interim storage of spent fuel would be temporarily placed in operation as authorized by the Spent Nuclear Fuel Act of 1979 until ultimate disposal in a permanent Federal repository." No "distant third" here.

Paragraph 7 states, "The disposal of low-level wastes from nuclear medicine programs and research and industrial facilities would be resumed under State license using the existing low-level burial ground." We wonder if this why Lundine and Moynihan asked Dingell to withhold publication of this report. ☸



Canadian Spent Fuel Shipment Captured in Sleuth's Lens: Note the placards on the side of the cask housing; Can you find the "Caution - Radioactive" sign?

Sleuth

Several members of two Canadian safe energy groups — Panda (People Against Nuclear Development Anywhere) and the Leeds County Conserver Society — Peter Onstein, Jim Mussel and myself attended the June 4th Ogdensburg Bridge & Port Authority meetings on banning radioactive materials crossing the birdge. Just after arriving back home in Prescott, I received an excited call from Marvin Resnikoff. He and Mina Hamilton, driving back to Buffalo from the same meeting, had just passed a TriState flatbed spent fuel truck between Ogdensburg and Watertown. Here was a lucky chance to get a photo of the secret shipment.

Grabbing a couple of cameras, I jumped into the car and rushed back towards the bridge. About a mile off I could see the truck lumbering across the bridge's middle

span. I lost no time, whipping into the Canadian customs parking lot. The driver parked off to the side, about 50 feet before customs, left the truck, briefcase under arm. That was my chance to quickly walk past customs and start snapping pictures of the fuel cask which was enclosed in a mesh cage. Only a very small nuclear emblem on the side of the cage indicated the nasty nature of the container. By this time I was attracting attention in the customs building. I ran back to the car and locked the doors. I was terribly excited. My first polaroid shot had turned out extremely well. I could only hope that my slides would also turn out. In the excitement, I had forgotten to adjust the light and distant readings on the camera!

Dashing back to Prescott I located Peter and Jim. We took off in hot pursuit of the truck which was turning west onto Highway 401. We had no sooner caught up to the truck when it pulled into a rest stop. The driver, apparently unaware of our presence, got out and started talking to another trucker. But when he noticed we had pulled off behind and were observing him, he quickly jumped back into his cab and took off. Two of my photos appear on this page.

by Sally Schmitt

Sally is active with PANDA, People Against Nuclear Development Anywhere, a Canadian safe energy group. ☸

Protests Erupt

"We firmly believe that we should bar the transportation of such material through the Village and that we have the right to do this. If this means forfeiting federal funds, so be it. I cannot refer to such funds as Federal Aid because we sent the money to them to begin with." — Robert Gray, Mayor of Mexico, NY

"Each politician passes the buck, but as Supervisor of Jerusalem, the buck stops here, with my Board and I. We take an oath of office which states we will protect our people's health and welfare. As corny as it may sound I will do my best and I will resist any attempt to override our law. I don't care if it is a Federal law." — John Payne, Supervisor, Town of Jerusalem, NY

These were the feisty comments of some of the elected officials and citizens who had gathered at a Citizens Hearing on May 22 in Hutchings Auditorium, Syracuse, N.Y. to voice their reactions to proposed DOT regulations that would pre-empt local transportation bans. In spite of the wide implications of these proposed rulings, the DOT had originally scheduled a total of only five hearings nationwide. New

York State has 14 regulating ordinances or out-right bans as of this writing. Originally, no DOT hearings were scheduled for the state. However, citizen pressure proved mightier than federal bureaucracy and, at the last minute, additional hearings were scheduled in New York City, Boston and San Francisco.

Confronted with the U.S. Department of Transportation's (DOT) refusal to hold hearings in up-state New York, the Radioactive Waste Campaign decided it was important to sponsor a citizens' hearing. The citizens would hold a hearing and then forward all written statements to DOT in Washington, D.C. before the end of the comment period. The hearing would give citizens the positive experience of being heard by colleagues and the press. The hearing would also make citizens feel less powerless and would blunt the frustration of always begging an impersonal, unresponsive bureaucracy for recognition. We were worried, however, about how many folks would turn out for a non-government agency hearing. The worries were unnecessary.

The May 22 hearing was co-sponsored by New York Public Interest Research

Group, Lakeshore Alliance, the Syracuse Peace Council, the Environmental Law Societies of both Cornell University and Syracuse University and SECONYS (Safe Energy Coalition of New York State). The work of the co-sponsors paid off in a 9-hour hearing attended by an audience of 200 with over 30 people testifying. This was more people than showed up for the DOT-sponsored Philadelphia hearing! The hearing was enlivened by a showing of the Sierra Club Radioactive Waste Campaign slide-show "Don't Dump on Us" and by a presentation of the Sandia Film, Accident Safe (see Resources) effectively critiqued by Fred Millar of Potomac Alliance.

All 30 of the Syracuse statements were formally presented by the Campaign at the DOT hearing in New York City on June 13, scheduled at the last minute by the agency. Apparently, pressure brought by Representative Ted Weiss, Dr. Leonard Solon (promoter of the NYC ban on transport of spent nuclear fuel), Mayor Ed Koch, Councilwoman Carol Greitzer and numerous citizens forced the hastily scheduled hearing. Several Congresspersons, State legislature members and New York City Mayor Koch, himself,

testified in addition to over 100 citizens. Even so, by 11:00 p.m. when the hearing was called to an end, over 100 more irate citizens were waiting to speak.

Within five days of the packed hearing, more than 24,000 signatures collected in New York City were presented to DOT in protest against the proposed regulations. The New York response was typical of a national outcry that has arisen over the proposed regulations that would render state and local officials virtually powerless in the designation of routes and times of the hazardous shipments and would wipe out any local pre-notification or permit ordinances currently on the books.

The entire Ohio Congressional delegation has gone on record in opposition to the proposed pre-emption, the Massachusetts Office of Transportation has characterized the regulations as "needlessly broad and providing a lower standard of safety to the public than does the current local scheme" and the National Association of Counties has passed a strong resolution in opposition to the new rules (see page five). Clearly, a series of court tests are in the offing if the DOT proceeds with such a deeply unpopular decree. ☸

"It's Safe, But Don't Sit in the Patio"

While in Middlesex, N.J., the Department of Energy (DOE) is proceeding in 1980 with band-aid "clean up" measures (see Plastic Baggies), at Canonsburg, DOE has said no clean up until an Orwellian 1984. Supposedly, the inordinate four-year delay is due to the agency's hope, in the meantime, to find some private industries that might be interested in reprocessing the contaminated material on the site, located 23 miles southwest of Pittsburgh, Pa.

The material on site is left over from the U.S.'s first radium factory which started operations in 1911 and from uranium ore processing for the Manhattan Project (see Spring, 1980 *Waste Paper* "Legacy of the Bomb") plus some additional materials that were imported from Canada by the previous corporate owner, Vitro Corporation. It is the Canadian material brought to the site in 1957 that might be rich enough in uranium content to be profitably mined. In fact, the reason Vitro imported the stuff was to extract the .4 to .45% uranium, three times as rich as presently mined ore, but the company found that the extraction process was economically unfeasible.

According to the DOE, the search for a private operator to extract the uranium will delay the development of clean up options, delay preparation of an environmental impact statement and the public hearings that are necessary before remedial action can begin. The delay is a cruel one for the 5000 residents living within one square mile of the contaminated site. Canonsburg is not just another nuclear waste dump. The 18-acre site has 60,000 to 500,000 tons of contaminated soil and eight contaminated buildings on site. (The wide discrepancy in estimates of amount of contaminated material on site is indicative of the sloppy burial and accounting techniques that have plagued the site for decades.)

All of the buildings are in an industrial park whose owner is grimly watching an investment of \$130,000 go down the tube.

Many, perhaps all of the buildings may have to be razed. These buildings were located on the contaminated site after the Atomic Energy Commission gave the old uranium processing facility a clean bill of health and released it for unrestricted use in 1966. Fourteen years later "clean" appears to be "not so clean." (In the Spring 1980 *Waste Paper* we incorrectly stated that the industrial park buildings had been fenced off. Not so. Many of the original businesses have left, financially crippling the industrial park owner, but four companies remain on site with about 60 employees. Local children can play on the unfenced site.)

Probably, the most serious problem at the site, however, is the large amount of contaminated material that was dumped into a lagoon in the floodplain of nearby Chartiers Creek. Here in an area once used as a ballfield the radium pico Curie content zooms as high as 17,000 pico Curies per gram. This is over 3000 times the maximum permissible concentrations suggested by the U.S. Environmental Protection Agency. This area contains the Canadian high uranium content material.

As has happened at so many other contaminated sites in the U.S., the radioactive problem is not limited to the original 18-acre facility. Just as insufficient understanding of low level radiation hazards led the Atomic Energy Commission to misdiagnose the Canonsburg site as "clean" in 1966, over the years, ignorance led contractors, and local entrepreneurs to sell soil, old building bricks, tools and other equipment from the plant to unsuspecting residents. Now citizens are confronted with the grim prospect of living with "hot" spots in gardens, basements, and bedrooms until DOE or some federal agency decides to do something. There are 25 home owners that have been informed by DOE that their houses may need some decontamination. However, the Pennsylvania state Bureau of Radiation Protection says that 150 homes



Agnes Engle, Canonsburg, Pa. is concerned about the radioactive waste legacy in her community.

may need some form of decontamination.

The worries and frustrations experienced by Canonsburg citizens living in these "hot" homes is akin to those of hundreds of citizens at Love Canal who are still trying to get funding for permanent relocation away from contaminated homes. At the Pennsylvania site as in New York, residents have been told there is no immediate hazard but, simultaneously, told not to use certain rooms or locations on their properties. Why the Department of Energy thinks residents will buy the "no hazard" argument while being told don't sit in the patio, don't sleep here, is a mystery.

Some of the types of use restrictions now being imposed upon the 25 "hot" homes were recently described by Matthew Kennedy in the *Pittsburgh Press*:

Item: A housewife is told her backyard is contaminated. Do not go beyond the pine tree in your backyard, says the government. Why? Because the patio was made with contaminated bricks from the old uranium processing facility. Do not walk by, walk over or sit in the patio. How does this homeowner feel about all those years of bar-b-ques and picnics with the family in the patio?

Item: A resident is told to avoid certain spots in the backyard and to stay away

from his tool shed. "We were told just not to go into the tool shed at all, or if we do, to just reach in and get out real quick again. It must have been built from things from that industrial plant," commented the homeowner to the *Pittsburgh Press*.

Item: A mother is told her daughter's bedroom is contaminated, so is the living room and a sewer pipe in her basement. The sidewalks around her home are also contaminated. Traces of radium around this home have been found at 240 times the normal level.

Item: A resident is informed that she may garden for "recreational" purposes only. However, she may not eat anything from the garden because the soil is too contaminated.

One resident, Agnes Engel (see photo) who is president of a community group, UCARE, that is dedicated to the cleaning up of the site, summed up the bitter frustrations and rising anger of citizens that are facing the prospect of living with "hot" spots for years: "Every now and then they do something just for show. They throw a bone our way. I'm just glad DOE isn't our fire department around here, or the town would have burned to the ground long ago." Citizens in this community are demanding action and will not tolerate waiting until 1984 for a clean up to begin.

Resources

The resources listed below are available at the price indicated. For large orders contact our office for bulk rates. When mailing, please include \$.28 postage for each item costing \$1.00 or more. For all materials priced at \$.10, \$.15 postage will suffice. Adjust the amount of postage you send according to the size of your order.

Sierra Club White Paper No. 2: Is Radioactive Waste Clean-Up Technology Available? A detailed analysis of the status of technology for cleaning up the West Valley radioactive waste dump. \$1.00

White Paper No. 3: Health Hazards at West Valley. A must for activists. Give it to your State Legislators and Congressmen. Important information on the health hazards of the high level waste and solid waste burial grounds at West Valley. \$1.00

Salt Will Not Work. The first of several fact sheets providing a brief review of why scientists and informed citizens are concerned about the current promotion of salt

as the favored geologic medium for a permanent federal repository. \$.10

What is Radioactive Waste? Sierra Club Campaign Brochure. A clear, readable, general introduction for laymen to the problem of radioactive waste in New York State. Excellent for distribution at meetings, conferences, debates. \$.10

"Accident Safe", Sandia Laboratories. This 1/2 hour color film supposedly proves that casks are safe. An excellent educational tool if the inadequacy of the tests are critiqued. We will send you an informative quiz on the film when you order it. Available for \$5.00 to cover postage and handling.

Spent Fuel Shipping Accident. Dr. Marvin Resnikoff's 33-page discussion of calculations that formed basis for "Spent Fuel Accident Devastating" article. Highly

technical, important to validate the possibility of a major accident. \$5.00 public interest groups; \$45.00 industry and government.

On the Job at NFS. Reviews design defects and operator errors at the NFS reprocessing plant. Shows that workers were routinely exposed to high radiation levels. \$.10

All Roads Lead to West Valley. Nuclear Transport: Is your Community Ready? What are the new NRC Guidelines for transporting spent fuel? Plus a look at the accident rate. \$.10

Radioactive Waste Slide Show. Includes review on the nuclear fuel cycle, problems of low level radiation, hazards of transportation, in-depth portrait of West Valley. Excellent for community groups, debates, teach-ins. Available with cassette or keyed, written script. Cost: \$55.00 (sale), easy terms arranged, call us. Rental: \$12.00 including postage.

-continued on page 8-

In the next Waste Paper

Vitro Corporation. The company responsible for the Canonsburg disaster, the now defunct Indian Point 1 plant and the Salt Lake City uranium mill tailings piles, dissolved in 1967. A profile. Who was behind the company and where did they go?

Uranium Mining in New Jersey? Exxon and Sohio are doing exploratory drilling for uranium in a popular resort community in rural northwestern New Jersey. What happens to a sleepy suburb when the oil companies come to town?

And much, much more.

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(716) 832-9100

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Please make checks payable to the Atlantic Chapter Radioactive Waste Campaign. Send to the above address.
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Yes, I would like to subscribe to the *Waste Paper* at the reduced, introductory rate of \$6.00 per year. I am enclosing a check in this amount.

Yes, I would like to volunteer some time for the Radioactive Waste Campaign. I will help with research, clerical, organizing, public speaking (please circle your interest).

Yes, put me on your mailing list.

Yes, I would like to stop radioactive waste Here is my contribution of \$ _____ to the Campaign.

Counties Oppose DOT

Legislators Richard Brodsky of Westchester County and Al Abgott of Erie County deserve high praise for convincing the National Association of Counties to pass on July 1, 1980 this strong resolution in opposition to the proposed DOT pre-emption regulation:

WHEREAS, the United States Department of Transportation has proposed rules concerning the highway routing of radioactive materials that totally preempt the jurisdiction of local governments over such shipments and excludes them from participating in any phase of the development or implementation of such proposed rules; and

WHEREAS, the technology of radioactive materials transportation presents a clear and present danger to the public health and safety in the minds of many informed observers, and that the actions of many local governments to prohibit such transport through their jurisdictions are based on the failure of the federal government to present reasonable assurances that such transportation is safe; and

WHEREAS, the National Association of Counties on behalf of its member jurisdictions recognizes and desires to meet the policy objectives of the US Department of Transportation contained in its proposed rules governing the transportation of radioactive materials, but seeks assurance that such rules adequately protect the public health, safety and welfare and recognize the responsibility of local government to participate in all decisions having such an impact.

NOW THEREFORE BE IT RESOLVED, that the National Association of Counties strongly opposes the Department of Transportation rules governing the Highway routing of radioactive materials as presently drafted and proposed; and

BE IT FURTHER RESOLVED, that the National

Association of Counties will accept federal rules controlling the transportation of radioactive materials and hazardous wastes that incorporate as a minimum the following concepts and principles:

participation of state and local government in planning the routes for and methods of radioactive material transportation, and in developing procedures for inspecting vehicles and equipment used in such transport.

pre-notification of affected local governments of the dates, times amounts and routes of radioactive material shipments, including use of alternate routes, from point of origin to point of reception.

requirements that originators, carriers and receivers (consignees) of radioactive materials receive training in the safe care and handling of such materials, including accident prevention and accident cleanup.

expansion of transportation modes covered by the rules to include all methods of shipment, including air, rail, water and pipeline transport.

assurance that radioactive material containers are designed and constructed to insure the structural integrity of such packages throughout the transportation process, from origin to disposal.

expansion of DOT radioactive materials and hazardous waste rules of jurisdiction, to include the age or condition of materials to be transported, as well as the shipment of Department of Energy - control spent fuel.

Volunteers

A bevy of students, an out-of-work photographer, a 75-year-old woman attorney, two teachers; these are the folks that make the Sierra Club Radioactive Waste Campaign tick. Every day, in morning and afternoon shifts, Monday through Friday, 3164 Main Street is staffed with people from all walks of life, dedicated to bringing the radioactive waste message to people in our five state organizing region. Did you order a T-shirt? Is there a town meeting TOMORROW and you need info NOW? Reinie, Gen, Mary, Rick, Neil, Lottie, Bernice and others are the people that answer your requests, collate our fact sheets and actually have a good time.

These Volunteers, with a capital V, come into our world for many different reasons. Some because there is a need to fill spare time and they see our "Volunteers Needed" sign in the window. Some because they are scared about the problem of nuclear waste and want to do something, anything. Some because they like the excitement of being involved in a campaign. Some because they want to do research that will help keep West Valley closed. So they walk in the door and enter a world of ringing phones and urgent messages. Ten thousand legislative alerts are zipcoded and mailed in four days, 100 phone calls flood Gov. Carey's office in 4 hours; these happenings and many more are made possible because of the dedication of these fine people.

Sierra Club Radioactive Waste Campaign Volunteers, we thank you, love you, and need you. Without you, our work would be impossible.

Chalk River . . .

—continued from page 2—

Thus, by 1980 when the Nuclear Regulatory Commission was ready to start the Canadian shipments up again, the political situation had radically changed. Although the NRC continued to insist that the Chalk River shipments routes must be kept secret, regular tips from policemen and state agencies alerted communities to the shipments. These communities then rapidly took action.

Citizens in Yates County first learned that the impending shipment was to be routed through the county in the fall of 1979. In January, the Yates County Legislature passed regulations requiring a \$50 permit and 48 hours notification before spent fuel could travel down the county roads. Geneva quickly passed pre-notification restrictions including proof of liability. In the first week of March, the rash of bans continued with Watkins Glen and Ithaca prohibiting spent fuel shipments with the vote unanimous in the Glen and 8 to 1 in Ithaca. Ithaca levied a whopping \$10,000 maximum fine and/or a maximum of one year in prison. (Initially, Ithaca had intended to only levy a fine of \$1000 but a common council member insisted that such a fine was far too little for the large corporations involved in the shipments.) Later in the Spring, Tomkins County joined the roster of communities with permits in place.

In April, the Ogdensburg Bridge Authority banned use of its bridge (see photo) for spent fuel transport. The ban was originally to go in effect June 15 but, supposedly because of N.Y. Department of State filing requirements, the ban will not be implemented until late July. The Ogdensburg ban may force the Canadian shipments onto the Cornwall-Massena bridge 30 miles north on the St. Lawrence Seaway. This bridge has a double span that drops down on the island of Cornwall, owned by the Mohawk nation. But the Mohawk Nation has stated loud and clear that they will not allow any shipments to pass through their territory (see statement this page). It seems quite likely that a little deliberate paper shuffling delayed the Ogdensburg ban so that all of the Canadian shipments could get through — thus avoiding a confrontation with the Native Americans this year.

On July 14, the St. Lawrence County Legislature passed a resolution requiring a "Certificate of Emergency Transportation" from the Civil Defense Coordinator. The Certificate would only be issued for "compelling reasons involving urgent public policy or national security interests". On July 15, the City of Cortland banned spent fuel shipments and Ellicottville in Cattaraugus County has done the same.

In Spring of 1980, Robert Burnett of the Nuclear Regulatory Commission announced the agency's current intention to honor such regulations. Because of the Geneva pre-notification requirement, NRC asked the licensee,

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Ogdensburg-Prescott Bridge over the St. Lawrence Seaway, entry point into the United States for the Canadian spent fuel shipments traveling from Chalk River, Ontario to Savannah River, SC.

National Lead, to change the route. A route change was made that shifted the shipment back into I-81 portion of the State. According to a highly-placed Albany source and our many friends, the new route by-passes Syracuse via route 31 going west and back east on route 20 (the segment between 31 and 20 is unknown) to I-81, down I-81 to Binghamton to link up with route 17, west to Horseheads to intersect with route 15 and then south into Pennsylvania. On June 3, the NRC embargo on travelling through cities of over 100,000 was lifted but secrecy is still current policy. But the secrecy provisions may be on the way out. A bill is currently moving through Congress that specifically states that the NRC is not authorized "to prohibit disclosure of information pertaining to the routes and quantities of shipments of irradiated nuclear reactor fuel". In any case, the Sierra Club has taken the NRC to Federal court under the Freedom of Information Act to force disclosure of shipping information. All communities who wish to sign on as parties or friends of the plaintiff should write the Sierra Club.

As the NRC debates the secrecy issue, communities in New York State, Mexico township, Chemung County,

Mohawk Statement

On May 15, the Massena Observer published the following statement of the Mohawk Council regarding possible shipments of spent fuel across the Cornwall-Massena bridge or through Mohawk land. The Cornwall-Massena bridge is 30 miles north of Ogdensburg. The Thousand Islands Bridge, just south of Ogdensburg, has had a prohibition against spent fuel transport in effect for some time.

This memorandum has been issued under the authority of the Mohawk Council of Chiefs at Akwesasne, and is being delivered to inform members of the Seaway International Bridge Board, and we will not tolerate the passage of nuclear materials, waste or otherwise, through any part of our territory.

The pollution levels affecting our people's lives are at an already intolerable state, and the presence of nuclear materials will contribute further to the demise of our lands, waters, air, animals, and people.

We wish for you to have it perfectly clear in your mind, that we will not allow the passage of any such materials to occur, and, we are prepared to take whatever action necessary to prevent passage.

*Onen,
Mohawk Council of Chiefs*

Steuben County and the City of Salamanca, are all considering some kind of restriction. The Sierra Club Radioactive Waste Campaign has copies of sample bans and permit systems available.

As the Chalk River shipments are nearing completion for this year, legislators may be breathing a sigh of relief. But there is no relief in sight for citizens worried about the opening of an AFR-away-from-reactor storage facility at West Valley, one of the three sites that may be built simultaneously at different locations in the country. A re-opened West Valley would make the Chalk River shipments look like a tiny trickle of irradiated fuel compared to the 5-7 shipments per day that would travel through our communities to the site. But we can be sure, that as the waste problem grows, and the threat of spent fuel transport touches more and more communities, so will grow the concern and opposition of the people.

by Carolyn Peterson

Carolyn Peterson was active in the campaign to convince the City of Ithaca to pass a spent fuel ban.

Con Ed. . .

Commission gave Con Ed 120 days to bring forward plans for decommissioning the "Christmas present".

Decommissioning the Christmas present

We do not know what plans Con Ed will unveil in October. We conjecture that Con Ed will opt for entombing IP-1 for 100 years, until the year 2080, perhaps longer. Entombment will also probably be proposed for the other two Indian Point reactors, IP-2 and IP-3 that began operation in 1974 and 1977, respectively. This approach would assume the eventual dismantling of all three reactors together, after radioactivity has declined to "acceptable" levels.

What do we mean by entombment or dismantling? Entombment, sometimes referred to as mothballing, means decontaminating, then cutting up external equipment and piping and storing it inside the reactor. The reactor is "sealed" and fenced. The "sealed", hot reactor will sit until someone at a future date decides to dismantle the plant. Dismantling means cutting up all the parts of the reactor — steel pressure vessel, reactor internals (see definition below) and containment structure. These enormous hunks of concrete and steel would then be carted off to an, as yet, undesignated burial ground. Entombing, mothballing, dismantling are all different forms of decommissioning.

Will money to dismantle IP-1 be available in the year 2080? Will Con Ed exist in the year 2080? Does money exist to entomb IP-1 reactor now? The costs for entombing IP-1 we estimate to be on the order of \$30 million. No liquid funds have been set aside for this project. Will Con Ed need a rate increase from the PSC for the operation or will the company receive Federal funds for the job?

What are the problems in decommissioning reactors? A reactor, like IP-1, consists of a massive cylindrical stainless steel pressure vessel, 33 ft. long by 11 ft. in diameter. Inside the pressure vessel are what are called reactor internals. These absorb the heat, hold the fuel assemblies in place, and channel the coolant water. Before

the reactor "goes critical", the metal is non-radioactive. However, during reactor operation, the stainless steel components of the reactor are bombarded with neutrons and become radioactive. For example, Iron-54, nickel-58 and 62, cobalt-59 and niobium-93, all constituents of stainless steel, become radioactive iron-55, nickel-59 and 63, cobalt-60 and niobium-94, respectively. The concrete surrounding the reactor vessel becomes radioactive as well.

It is not just the concrete and metal of the reactor vessel plus internals that becomes radioactive. The reactor piping is also now radioactive. During reactor operation, a minute fraction of the irradiated fuel leaks into the water coolant, along with radioactive corrosion from the reactor. These radioactive materials circulate through the piping and cause internal surface contamination.

Twenty second dose

The initial radiation dose due to the radioactive buildup makes immediate dismantling of the reactor extremely hazardous. The initial radiation dose, after the irradiated fuel and coolant water has been removed, is very high, on the order of 100,000 Rems per hour. A worker would receive a lethal dose in 20 seconds in this intense radiation environment. The high dose is primarily due to cobalt-60, with a half-life of 5.27 years.

After 100 years, cobalt-60 will have decayed to "safe levels". It is for this reason that Con Ed is likely to opt for the 100 year "cool down" period. After the decay of cobalt-60, the reactor still remains radioactive, due to other radionuclides. Niobium-94, with a long half-life of 20,000 years, will contribute a dose of 1 to 2 rems per hour for tens of thousands of years. Nickel-59, with a half-life of 80,000 years, will contribute a dose of 100 millirems per hour, essentially forever. After dismantlement, the reactor parts, therefore, must be disposed of in a Federal repository.

To prepare for the 100 year "cooldown" period, Con Ed would entomb the reactor. Pipes and the reactor vessel would have to be cleaned of loose radioactive contamination. The external pipes would be cut apart and

relocated inside the reactor vessel for the 100 year period.

The reactor and cut up parts stored inside would be backfilled with sand (to soak up any excess moisture). The entire containment structure would then be epoxied. But what will prevent this entombed structure from resulting in a state of neglect pictured at the beginning of this article? Are there any other options?

Underwater

No large commercial reactor has yet been decommissioned. Only one small 22 MW reactor, at Elk River, Minnesota, with 3 inch thick walls, has been dismantled. This was after a short 3 year "cool down" period. That operation took place under water with specially designed, remote control equipment. Underwater cutting equipment for large commercial reactors with 7 inch walls, is not yet available. The radiation levels in large reactors make immediate dismantlement hazardous and expensive option. The IP-1 reactor will have 30 times the radioactivity of the Elk River plant. But dismantling must be carefully studied. Otherwise, future generations will be saddled with a staggering financial burden and an impossible maintenance problem.

Where will Con Edison be in 2080 when the "cooled down" reactors are ready for dismantlement? When the exorbitant decommissioning costs must be paid? Most likely Con Edison will have "dissolved", disappeared just the way the IP-1 general contractor, the Vitro Corporation, did in 1967. And Con Ed will have left behind a poisonous legacy just as Vitro did at Salt Lake City, Utah, Canonsburg, PA (see page four), where mounds of Vitro uranium mill tailings are dumped, and at other, as yet undiscovered sites throughout the country.

The Waste Paper readers should obtain a copy of Con Ed's decommissioning plan as soon as it is available. We will be working to assure that the plan is not a corporate bailout and not a disaster for future generations.

Write the Sierra Club Radioactive Waste Campaign if you wish to be involved in the campaign to clean up IP-1. Stay tuned for more details on an educational organizing strategy on this issue. And remember the Con Eds of today are the Vitro's of tomorrow. ☸



The Radioactively contaminated drainage ditch at the Middlesex, NJ waste dump site. In the background is the former uranium sampling plant.

Plastic Baggies. . .

—continued from page 1—

Middlesex. How was the contaminated soil to be dumped on the plastic without ripping it? Perhaps, suggested one critic, the contaminated soil should be transferred via teaspoon from dump truck to plastic bed to prevent ripping? And how long would the plastic last? One year, two years, ten years?

Phase II

A second phase of the proposed clean up operation at Middlesex would involve digging up contaminated soil on the 9.6 acre site of the old sampling plant itself and relocating it on the property. But this phase would not materialize until 1981. The relocation of contaminated soil at Middlesex was ominously reminiscent of a similar action taken at the Lewiston, N.Y. site in 1972. There, because of contamination of a drainage ditch leading off the site, 15,000 cubic yards were scraped from the ditch and transported to a "spoils pile" on the site. A mere six years later, in 1978, radiation monitors located near the Lewiston spoils pile were registering consistently high readings and another remedial action was necessary. (The only difference between the 1972 Lewiston relocation and the proposed 1981 Middlesex one is that the latter incorporates the plastic baggy concept. Not too much progress in three years.)

Phase II at Middlesex may also involve some scraping of the ditch (see photo) leading off the site which is contaminated

with water soluble radium. But how far down the ditches that feed into a stream which, in turn, leads into the Raritan River has not yet been unspecified. (At one point, one quarter mile downstream from the Middlesex plant, concentrations of radium are fifty times what the Environmental Protection Agency considers acceptable.) As yet the specifics of what remedial actions will be taken on the Middlesex site regarding contaminated buildings that need to be razed are not laid out. And how and when a contaminated municipal landfill site in the Borough of Middlesex — to which apparently, materials from the old uranium sampling plant were unwisely transported decades ago — will be cleaned up is also left disturbingly vague.

Because of Middlesex citizens' understandable concerns about the design and implementation of Phase I and II of the remedial action at the old Manhattan Project site, an ad hoc citizens group including the Sea Alliance and the Junior Chamber of Commerce has been formed to press for certain changes in the contemplated action.

Citizens are concerned over the possibility that the digging up of contaminated areas on the old sampling plant site might not be initiated for three to five years, that additional radioactive waste from other parts of the state might be transported to the Middlesex dump, and that since no permanent repository for the

material is likely to be available for some time it would be best to proceed with the best available technology for storage of these radioactive materials than with the cheaper temporary plastic bag concept now being planned.

Local groups are now advocating that the plastic baggy concept be replaced with a piggyback steel container concept. In this scheme, the radioactive waste would be loaded into steel containers at each contaminated site such as the Lady of Mount Virgin rectory and then transported to the Middlesex facility inside these piggyback containers which are routinely used in rail and shipping transport throughout the United States. The materials would sit in the steel containers on site with no fear of plastic rips, wind storms or leakage until such a time as a repository was located. Then, the containers could be easily shipped to the repository location without again digging up the contaminated material, and repackaging it. Clearly, the piggyback concept would greatly allay concerns of residents regarding airborne dust flying off trucks carrying contaminated material from one location to another and assure a secure package for at least twenty years.

Citizens who want to get involved in the Middlesex battle should contact Sue Sachs, Sea Alliance, Box 1656, New Brunswick, N.J. 08903.

Quid pro quo?

While Middlesex residents attempt to move the federal bureaucracy towards a better solution at the old Manhattan Project dumpsite, New Jersey residents as a whole are starting to wake up to a threat that is directly tied to the remedial action at Middlesex. When a Memorandum of Understanding regarding the Middlesex "clean up" between DOE and the Borough of Middlesex was signed at the end of 1979, DOE held out the limited carrot of Phase I decontamination, but simultaneously presented the State of New Jersey with a substantial stick. The stick is detailed in paragraph ten of the Memorandum. The New Jersey Department of Environmental Protection (DEP) agrees that it will provide the U.S. Department of Energy with "active cooperation" in locating a "permanent disposal site for the radioactively contaminated material which the DOE will

remove from temporary storage at the former sampling plant". Once again as at West Valley, New York where federal "clean up" monies have been tied to various behind-the scene promises regarding the re-opening of the West Valley spent fuel pool or burial ground (see West Valley Update), a quid pro quo seems to be in the offing at Middlesex.

So the hunt is on for a "low level" radioactive waste burial site in New Jersey. The New Jersey DEP has contracted with the Delaware River Basin Commission to develop criteria for site screening and selection for such a dump. The Delaware River Basin Commission, a four state commission set up in 1961 to oversee water management in the four state region (NY, NJ, DEL, PA) surrounding the Delaware, is not an agency noted for its responsiveness to environmental issues or public concerns. Because the Commission has consistently taken positions favorable to the deployment of nuclear power plants throughout the Delaware Basin, citizens are wary regarding its new role on the radioactive waste disposal front.

Citizens wishing to obtain copies of the radioactive waste criteria when they are available, should write the DRBC/DEC Joint Hazardous Waste Program, P.O. Box 7360, West Trenton, New Jersey 08628 or call David Pollison 609-883-9500 or Jack Stanton 609-292-5383.

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West Valley...

-continued from page 2-

NYSERDA board and staff to more vigorously pursue the corporate polluters and to seek financial compensation on the grounds that the provisions of the original waste storage agreement have not been met. NYSERDA, however, has consistently taken the position that Nuclear Fuel Services's assets are too limited for significant recovery of funds and that it is impossible to "pierce the corporate veil" of the parent company, Getty Oil's, assets.

Sierra Club Radioactive Waste Campaign directors Mina Hamilton and Marvin Resnikoff and Friends of the Earth Mid-Atlantic Representative Lorna Salzman met on June 16 with some NYSERDA staff and its attorneys in an attempt to broaden the agency's approach. It is to the credit of the NYSERDA board of trustees that they requested such a meeting be scheduled. But, unfortunately, the meeting was a failure. The NYSERDA staff refused to talk about the details of whether the original agreement by NFS to leave the site in "good condition" had been met. And the public interest groups had no

interest in talking about the corporate veil issue.

At this point, the Campaign is beginning to wonder if NYSERDA is protecting the taxpayers of New York State that will have to bear the heavy clean-up costs or the corporate polluters that created the mess at West Valley in the first place. Since 1980 is the year in which Getty Oil has announced its intention to leave the site, if the state is going to sue either Getty Oil or NFS for some portion of the whopping \$600,000,000 clean-up costs, a suit will have to be brought in the next few months. If NYSERDA does not move in this direction, a suit against the agency may be in order.

The Radioactive Waste Campaign has a lot of organizing and educational work to do in the upcoming months. Persons interested in getting involved should write the Campaign at 3164 Main Street, Buffalo, New York. We need activists all over the state, but particularly in the down-state region. ☸



Dear Friend,

We would like to keep sending you the *Waste Paper*, the world's first paper to specialize in radioactive waste, but we just can't afford to do it. We are starting now to take subscriptions for 1981. If you are already a subscriber, please renew now. If you want the latest news on breakthroughs in the waste technology, up-to-date reports on citizen battles all over the country, tips on resources and organizing please sign up now. Only \$6.00 for this important quarterly.

Double Speak

What's in a name? We think a lot. Take the term AFR. The AFR acronym implies a bland, harmless storage facility that is easily misunderstood by policy makers. We think AFR should be relabelled IFS.

IFS stands for Irradiated Fuel Storage. It is important to use the term "irradiated" fuel rather than "spent" fuel. "Spent" implies used up, wasted, non-hazardous. "Irradiated" fuel is, on the contrary, extremely toxic, containing millions of curies of extremely hazardous isotopes.

Furthermore, IFS are full of IFs and

are plagued by ifs. IFS will meltdown if the pool cracks and water drains out. IFS will impact on every community of the United States if spent fuel starts moving down the highway. IFS are in fact very IFFY. If a federal repository is not developed, we will have Irradiated Fuel for Years (IFFY) at each individual IFS.

Start using IFS in talking to your community leaders and legislators. Independence from the language of the DOE is a first step towards independence from the policies of the agency.

Letters to the Editor

The Waste Paper welcomes letters from our readers. We reserve the right, however, to edit letters before publication.

Volker Letter

Dear Radioactive Waste Campaign:

Thank you for your very kind letter in relation to the enactment of the away-from-reactor storage facility siting bill. While the Governor finally signed the siting bill, I am convinced he only did so because of the unified stand taken by both the Assembly and Senate and because of the strong support for the bill on the part of individuals and organizations in the Western New York area.

Thanks again for your letter and for your efforts in behalf of the legislation.

Dale M. Volker

subsequent actions? A cask isn't an automobile nor do we treat it that way. Every "defect", however trivial or apparently unrelated to safety, is very seriously and very carefully analyzed. Engineering knowledge and methods are always expanding. We routinely apply that new knowledge to reanalyze and improve cask safety. That doesn't mean that they were not or are not safe. It means that they will constantly become safer and safer. Our analysis of the "defect" has shown that the NFS-4 casks were safe. We learned that the margin of safety was larger than originally thought. We also found ways to make further improvements which we can and will do. We call this process simply calm, responsible professionalism. This is hardly cause for an "Obituary." It is cause for confidence.

There are many patent errors in the article, but I will note only a few. Certainly, the truck was smashed in the Sandia test but, obviously, the trailer did not absorb the railroad engine crash. The cask did — and scratch one railroad engine! Fins are put on casks to transfer heat, not

to protect against crashes. We don't know where NAC made the comment attributed to us. It would be interesting to see where the authors found it. Since it supposedly is a direct quote, they should be able to document the source.

Their comments on the Department of Transportation (actually NRC) tests are misleading to say the least. One can concoct all sorts of unlikely accidents and totally ignore reality. The facts are that despite all the shipments of spent fuel both here and abroad that have taken place during the past thirty years, I am unaware of any accidents that have resulted in a radioactive release. No other industry can boast of a better safety record.

I expect the *The Waste Paper* is read by a reasoning, intelligent readership. I would suggest to Liebold and Audin that "Thy stridency gives thee away."

John V. Houston, Jr.
General Manager
Sales and Marketing
Nuclear Assurance Corporation

Audin & Liebold Reply

Analogy of a dented fender. Detroit does not take 4 out of 7 cars permanently out of service for a dented fender, but the NAC-1 cask was taken permanently out of service by the NRC for its dents. The NRC apparently differs with NAC as to what is a safe cask.

Why was one of the casks jerry-rigged with exterior copper plates in clear violation of the certification of compliance for the NAC-1 casks? Why were neither of the problems with the NAC casks never mentioned to the NRC by NAC? Why did the manufacturers' reports of these casks not reflect the bowing and other problems of the casks? Why did over 300,000 miles have to be logged by NAC-1 casks before the defects were found?

It is surprising that NAC is unaware of its own statements in studies published less than 3 years ago regarding the applicability of the Sandia tests. A study entitled

-continued on page 8-

NAC Letter

To the Editor:

I have read your spring, 1980 issue of *The Waste Paper* and would like to comment on the article by Liebold and Audin, "Obituary of Cask Safety."

The authors frequently refer to the "defects" discovered in the NFS-4 casks. The "defects" are in the nature of receiving delivery of a new car with a dented fender. I suppose I would consider that a "defect" and I certainly wouldn't like it. However, I don't think I would consider it proof of an automobile safety problem.

Why then the report to NRC and the

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More Resources

—continued from page 4—

Canadian Spent Fuel Shipment. What is the Canadian shipment? Why is it being shipped to Savannah River, South Carolina? Includes latest route information. Get prepared for 1981 shipments now. Ten pages. \$1.00

Citizen Network will be published every other **Waste Paper**. It will be sent out free of charge with literature requests.

"Spent Fuel Accident Devastating: Can Millions Be Evacuated?" *Waste Paper*, August-September, 1979. What happens when an unseated pressure valve in a spent fuel cask leads to a major accident? How are emergency personnel likely to respond? What health impacts are expected with a major release of Cesium-137? An important article to circulate to your local emergency planning and health departments. As yet the Nuclear Regulatory Commission has been unable to demonstrate that this accident cannot occur. \$.10

"Waste Not, Bury Not: Just What the Doctor Didn't Order", *Waste Paper*, Winter, 1980. The commercial nuclear power industry is desperate to find local land burial sites for tons of material now being sent to Barnwell, South Carolina. To make unpopular radioactive waste burial sites seem necessary, the industry is hiding behind the alleged need for sites for medical wastes. This article analyzes half lives and quantities of isotopes used in medical diagnosis and treatment and proposes a viable *on-site* management system. \$.10

"Obituary of Spent Fuel Cask Safety", *Waste Paper*, Spring 1980. As DOT moves to pre-empt all local regulations on spent fuel transport, it is important to educate local officials as to the adequacy of spent fuel cask design and safety tests. "Obituary" should be circulated to all the members of your local county legislature.

3164 Main Street
Buffalo, New York 14214

Letters . . .

—continued from page 7—

"Capability of United States Domestic Transportation Systems for Shipment of Radioactive Waste", which was prepared by NAC under contract to Union Carbide in September 1977, states that the study done by Sandia Laboratories could not be applied to many of the present day casks. Perhaps NAC's sales manager should familiarize himself with his company's technical literature. Perhaps Mr. Houston does not realize that the output of just the present operating reactors will surpass in 2 years the number of shipments in the previous 30 years. If the trucks are allowed to move freely such an increase in the rate of shipments, especially in the hands of an untrained industry, makes irrelevant any past shipping history. (About which the data, according to Federal studies, is often quite sparse and sometimes open to question.)

Perhaps the nuclear transportation industry is simply unaware of these facts, in which case I can only say "thine ignorance reveals they danger."

Some Like it Hot

To the Editor:

The radioactive waste could be dumped in an active volcano, the intense heat could change the whole negative and positive ion setup and thus destroy the nuclear waste. I'm just a layman, with some chemistry knowledge, that has taught me heat makes a very big difference in nearly all chemical reactions. The temperature in a volcano is much above 990 degrees F. The more complex the chemistry the more intense the heat. In that no scientist knows what to do with nuclear waste, I say it is worth a try. After all, all chemistry knowledge came about by trying this and that.

Frank I. Bynum
Ft. Worth, Texas

Editor's note: Unfortunately, high temperatures do not make radioactive materials disappear. And if you thought the volcanic ash was hot before, well. . .

Protests Erupt Page 3



Fred Millar of Potomac Alliance at citizen hearing on proposed federal preemption law.

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