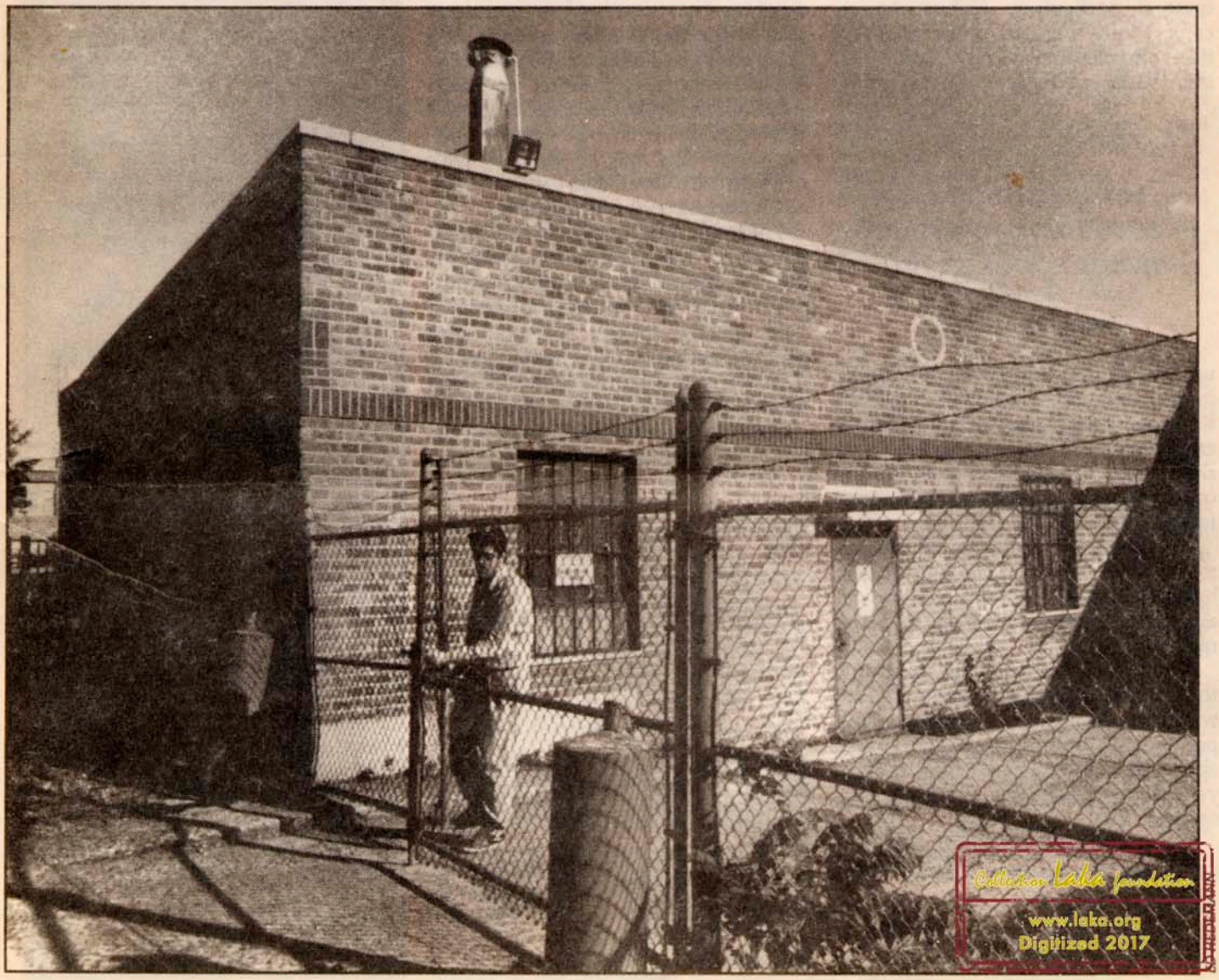
rwc Waste Paper

radioactive
waste
campaign

Fall
1988

Abandoned radium factory in Queens, New York. See story on page 3.



EDITORIAL

Radon Danger & Greenhouse Effect

Nuclear Industry Steps Up Propaganda War

By Marvin Resnikoff

The earth may be heating up. Radon in homes is probably causing tens of thousands of lung cancers each year. But the propaganda from the nuclear power industry, as they "interpret" these tragic events, is deafening. I sense they are setting the stage for a new generation of nuclear reactors. After all, radon and the greenhouse effect are not new phenomena. Why all the urgency now?

Radon is well known to uranium miners, particularly Native Americans, where the lung cancer rate is 5 times the national average. Radon, an inert, radioactive gas, is a decay product in the uranium chain. Radon is present wherever uranium is. The Reading Prong, a geological formation extending from Appalachia north to the Connecticut border, has higher concentrations of uranium and therefore radon.

The nuclear industry likes to think that radon makes it look good.

As a gas, radon can seep into basements. The hazard is obviously real, but can be mitigated with ventilation and appropriate construction techniques.

The nuclear industry likes to think that radon makes it look good. But with so many long-time nuclear proponents expressing deep-felt concern about the cancers caused by radon, you know something is up. (See article on page 15.)

The argument goes—why worry about the cancers caused by nuclear power reactors with so many cancers caused by natural radon? Well, many of us are very worried about the increasing cancer rate near nuclear power plants, a matter the Centers for Disease Control is studying. To further underline this concern, an increasing cancer rate among Japanese bomb survivors implies a cancer time bomb among workers at nuclear power plants.

The greenhouse effect and global warming has received tremendous play in the news media recently. It's scary enough to imagine the ocean rising 600 feet due to polar ice cap melt. After all, most of the great cities are located at sea level, and would be underwater. This may be the only way to clean up New York City, but the ramifications are unimaginable.

The greenhouse effect is caused by increased levels of carbon dioxide in the air, due primarily to the burning of coal and the reduction of forests. Since nuclear power reactors don't produce carbon dioxide, replacing all coal plants with nukes should head off the greenhouse effect, right?

Wrong! The basic fallacy in the argument is the following. Nukes only produce electricity, which is a mere one-third of fossil fuel use. Aside from not replacing enough fossil fuel use, think of the capital and engineering requirements.

Nukes only produce electricity, a mere 1/3 of fossil fuel use.

If energy demand worldwide doubles by the year 2025, and if coal plants are systematically phased out, the Rocky Mountain Institute estimates that one nuclear plant would have to be begin operation every *2 or 3 days*, at a cost of more than *$500 billion annually*. Holy moly! I won't tell you how many high-level waste repositories would have to be constructed, and

continued on page 8

Marvin Resnikoff is the research director for the Radioactive Waste Campaign.

rwc Waste Paper

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Reprinting from the rwc Waste Paper may be done with acknowledgement. Kindly send reprints.

The Radioactive Waste Campaign promotes greater public awareness of the dangers to human health and the biosphere from the generation of radioactive waste. The Campaign's programs include research, information dissemination and public education.

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Major Radium Dump Found in New York City

By Jean Fazzino

The repository for the world's largest commercial concentration of radium-226 has been found in an abandoned factory in New York City. This has caused considerable concern among state and federal environmental agencies about how to clean it up.

Located near a densely populated residential area in the borough of Queens, and adjoining the Brooklyn-Queens Expressway, the building holds an estimated 10,000 vials of radium and additional contamination totaling an incredible 140 curies!*

Geiger counter readings of the building exterior have recorded 80 millirems per hour—40 times the federal standard of 2 millirems per hour! Excessive readings were recorded from a window close to the vault area where the radium is stored. Illegally high readings have been recorded on the roof.

The Radioactive Waste Campaign has learned that state and federal officials have held a series of planning meetings which the Attorney General's Environmental Protection Bureau says are to make sure the public is adequately protected. Yet the magnitude of this problem has caused the U.S. Environmental Protection Agency to be very protective of information.

World's largest commercial concentration of radium is in Queens.

The most serious question is: Where will this enormous quantity of radium waste go? The "low-level" waste dump at Barnwell, South Carolina, no longer accepts radium. New York will not have a "low-level" waste dump until at least 1993 and more likely, 1996. Hanford (Washington) and Beatty (Nevada), the only two dumps still taking radium, are very cautious about what they will accept.

This is an extremely volatile situation which has the Environmental Protection Agency (EPA) working hard to keep publicity at a minimum. They hope the project can be completed without creating a confrontation with the host state.

Radium removed from Montclair, NJ, a miniscule problem in comparison, was rejected for disposal by both Hanford and Beatty probably because it had gotten so much publicity. An EPA official admits there is no legal reason for either dump to have to accept the radium. The Campaign was advised not to cover the story.

All this puts the Environmental Protection Agency in a no-win situation. According to the Agency, the radium cannot remain where it is. But will the people of Nevada be willing to play host to New York waste if they are informed? An option not being considered by city and federal officials is to repackage, *safely* store and monitor the radium in the building where it is presently located.

The Radium Chemical Company

The Radium Chemical Company has occupied the building since 1954. Founded in 1908, Radium Chemical is owned and headed by Joseph A. Kelly Jr. For the past 75 years, Radium Chemical has sold, leased and repaired cancer-treating tools made of radium. These were used in the now out-dated therapy of implanting needles containing specks of radium near cancerous tumors. When more manageable techniques for treating cancer were devised the radium treatments became obsolete. Some twenty years ago business began falling off and the building became a storehouse for extraordinary quantities of radium, nearly 1 1/2 times the state limit for storage in any one place.

Between 1980 and 1983, the New York State Department of Labor found 114 safety violations at the factory. Radium Chemical Comp. was ordered to halt all commercial operations after it was found to have mishandled and even lost radium. Inspectors discovered leaking containers, improper monitoring of employee exposure and radiation levels 10 times higher than normal in the sewer outside the plant. Even after the Department of Labor revoked its license, Radium Chemical received at least 30 shipments of radioactive materials.

The EPA is trying to minimize publicity in this extremely volatile situation.

Factory Taken Over by Government

In 1987, the Labor Department sought help from the New York State Attorney General after Radium Chemical failed to comply with repeated requests to correct illegal emissions, remove the extremely dangerous inventory and decontaminate the site. In July 1988, the New York State Attorney General convinced that Radium Chemical could not pay for the clean up, fought for and won a ruling which declared the building an abandoned waste site. This designation brought the site under the jurisdiction of the Environmental Protection Agency and Superfund monies.

Officials contend that the *gamma radiation*, while a serious symptom of inadequate radiological maintenance, is not a significant public health threat. The problem, however, is that in the event of fire, explosion, improper disposal or theft, there would be widespread dispersal of radioactive particles—*alpha radiation*—and serious environmental contamination.

*One curie, a measure of radioactivity, is by definition equivalent to one gram of pure radium. In contrast, the total amount of radium extracted in Denver, Colorado, near where radium ore is located, was 50 curies.

Jean Fazzino is the Radioactive Waste Campaign's organizer.

Clean-Up

Cleanup of the site is viewed by these officials as a two-step process. First removing the radium, second, decontaminating the entire site.

Official estimates for removing the radium say it could take from three months to one year and cost from $500,000 to $1 million. The costs for decontamination by sandblasting or tearing out walls, floors, and ventilating systems and burying it all in a secure landfill cannot even be estimated until the radium needles are shipped out and Geiger counter readings taken.

Disposal of radioactive waste such as radium, which has a half-life of 1,600 years, is complex and costly. However, officials describe the *removal* of the radium to be a relatively simple job. The radium, most of it in one-inch long platinum and gold needles, must be packed in lead and concrete barrels the size of 55-gallon drums. Workers handling the needles must wear lead-lined clothes. The barrels could then be loaded onto trucks and shipped to a dump.

Though a contractor for the cleanup has not been found, officials are hoping cleanup can begin in November or December.

Other Radium Sites

A joint investigation by the New York State Assembly Environmental Conservation Committee and Brooklyn College physicists has uncovered yet another Radium Chemical Company site. A two-story building in Manhattan contained radioactive materials with radiation levels nearly three times the state limit for annual exposure. High levels of radiation were found in the cellar suggesting the presence of radium under the floor tiles, beneath the wall paint and in the sewer line.

Radium Chemical also has abandoned factory sites in Ottawa, IL, Denver, CO and Athens, GA. Other commercial radium sites can be found in Connecticut, New Jersey and Pennsylvania.

Though there may be more commercial sites, EPA officials believe they are not of the same scope as the ones already discovered, and certainly not as large as the one in Queens. The largest stores of radium, associated with wastes from the original Hiroshima bomb, are located in Fernald, Ohio and Lewiston, New York.

ED HEDEMANN

Manhattan building where high radiation levels were found in cellar.

Cesium Leak Update

Immediately following the report of the June 4 accident at Radium Sterilizers, Inc. in Decatur, Georgia (see the Summer 1988 *Waste Paper*), federal officials took control of the facility and began a recall of all products that were irradiated at the plant between April 29 and June 4. This included over 70,000 medical supply containers and milk containers. Results of testing showed pinpoint contamination on the exterior surfaces of several packages.

Ten employees of the plant were exposed to the radiation and evaluated for contamination. Three had measurable radioactive contamination on their clothes, in their automobiles or in their homes. The contaminated areas were removed and stored at RSI, waiting "low-level" radioactive waste disposal.

RSI administrative offices sustained extensive radiation in 27 areas. Decontamination procedures are in progress and access to the building is restricted.

Twenty-nine of the 252 capsules in the radioactive source system have been identified as suspect due to abnormal discoloration in the vicinity of the welds at the end caps. To conduct additional evaluations of the suspect capsules, 3 were removed from the pool to be destructively tested at Oak Ridge. Yet, the water in the system continued to get more radioactive, indicating the source of the leaks were not those 3 capsules. The result of these tests will determine the fate of the remaining capsules.

The Department of Energy has developed an extensive removal, packaging and transporting plan for the capsules. The double encapsulated cylinder is removed from its rack in the pool and placed in a stainless steel overpack. All water is removed with a nitrogen gas purge. The dry source and overpack is then placed in a GE 600 shipping cask already placed in the cell by crane through the roof of the building. The shipping cask is transported by the Energy Department trailer to Oak Ridge.

Three additional licensed facilities that use cesium-137 as a sterilization source are in operation in Westerville, Ohio, Lynchburg, Virginia, and Denver, Colorado. Owners of all 3 facilities have been notified by the DOE that the radioactive sources be stored in water until further notice. The Westerville plant is owned by RSI.

Jean Fazzino

We love to get mail! Send your comments, contributions, letters to The Editor, The Radioactive Waste Campaign Waste Paper, 625 Broadway, 2nd Floor, New York, NY 10012.

Nuclear Waste Used as Fertilizer in Oklahoma

By Jessie DeerInWater

The people of Sequoyah County, Oklahoma knew that Kerr-McGee's Sequoyah Fuels Facility had something to do with the nuclear industry. But that's about all they knew until a group of citizens formed to stop the facility from injecting its nuclear waste into the ground.

Some of the incredulous information that these citizens—Native Americans for a Clean Environment—discovered was that the facility was also converting its nuclear waste into fertilizer. This Kerr-McGee program is the largest one in the United States that recycles radioactive wastes for agricultural use. About 18 million gallons of treated raffinate were sprayed on 10,000 acres of pastureland in 1987.

"Raffinate" is a generic term for a liquid waste stream. Kerr-McGee originally called their fertilizer "treated raffinate." Later they called it "barium treated uranium raffinate solvent extract," then "dilute ammonium nitrate," and finally, "nitrogen fertilizer solution."

Although the name changed over the years, the solution did not. It still contains traces of 3 radionuclides (uranium, radium, thorium) and 18 heavy metals.

Kerr-McGee hired an agronomist from the Oklahoma State University to test the fertilizer and compare it to other fertilizers. Unfortunately, they did not choose a common fertilizer (such as Vitagrow or chicken manure) for comparison. Their standard was a International Minerals and Chemicals fertilizer, *made out of mined phosphorous that had been put through a uranium extraction process!* Thus the Kerr-McGee fertilizer did not seem much worse.

Consequently, the fertilizer was licensed for commercial use in 1987 by the Oklahoma Department of Agriculture (after the state fertilizer law was rewritten). Since that time Kerr-McGee has been marketing the fertilizer outside the state.

Jessie DeerInWater is a founder of and activist for Native American for a Clean Environment. She is also a member of the Radioactive Waste Campaign's advisory board, and is currently a full-time student.

Their ingenuity in marketing nuclear waste to the American public is reminiscent of the aluminum industry getting rid of their waste (fluorine) by convincing us it was good for our children's teeth, or the nuclear weapons industry using its waste (e.g., cesium-137) to irradiate our food.

Nitrogen is the redeeming ingredient in Kerr-McGee's fertilizer. Unfortunately, it's formed by the addition of ammonia to the nitric acid solution that was used to extract the fissionable materials from yellowcake (milled uranium).

The heavy metals include such villains as arsenic, mercury, lead, selenium, cadmium, cobalt, and other impurities for which the Nuclear Regulatory Commission has set limits. However, the Commission calculates that Kerr-McGee will reach those limits within 20 years. Nevertheless, they have allowed the company the option of applying the 20-year limit in a single application.

The original plots where the fertilizer was tested have now been taken out of service because of contaminate buildup. That land will never be able to be used again for farming. Most likely this will be the fate of the 10,000 acres on which Kerr-McGee is presently splashing their fertilizer.

DAN AGENT

Nine legged frog found in pond on land where Kerr-McGee regularly sprays their fertilizer. Deformities are not uncommon mutations in the area.

The Kerr-McGee Corporation

Though many people know Kerr-McGee as the company responsible for Karen Silkwood's death, few are aware of the extent of Kerr-McGee's involvement and influence in the uranium industry.

During the 1950's and 60's, Kerr-McGee was the U.S. government's *largest* supplier of uranium for the nuclear weapons program. In 1966 it was the *first* company to sell uranium to the private sector and has since contracted to supply uranium for reactors in 21 states and 8 foreign countries.

To establish its supply of uranium, Kerr-McGee has prospected in *18 states and 6 countries*. Just to fulfill its nuclear weapons' contracts, Kerr-McGee mined 14 million tons of uranium ore from 53 underground and strip mines in 5 states. It has controlled as much as 1,900,000 acres of potential mining lands at one time.

The Kerr-McGee plant in Sequoyah, OK, is one of just two plants in the U.S. that converts uranium ore to liquified uranium hexafluoride, which is then shipped to enrichment facilities.

When the Atomic Energy Commission's uranium contracts were negotiated, Robert S. Kerr was a senator and member of the Senate Finance Committee, which controlled appropriations to the AEC.

Dean McGee testified at congressional hearings for taxpayer subsidies of the uranium industry. President Kennedy ap-

continued on page 6

Jessie DeerInWater

Profile of an Activist

Jessie DeerInWater is a mother of 5, grandmother of 2, hairdresser by profession, full-time college student pursuing a degree in environmental law, as well as a dedicated activist.

Jessie co-founded the Native American Protection Council to bring to light the problems facing Indian children who were being adopted by non-Indians. She worked diligently on a successful campaign to stop the siting of a nuclear power facility in eastern Oklahoma. She has provided time and energy to such causes as Native American rights, the anti-war movement, civil rights, and the child rights movement.

Jessie is perhaps best known as co-founder of Native Americans for a Clean Environment (NACE). This organization was formed in 1985 by members of the Cherokee community in eastern Oklahoma to stop the licensing of injection wells as a means of waste disposal for the Kerr-McGee facility.

In answer to husband William's question "What is an injection well?", Jessie made a phone call which confirmed her suspicions that this practice would lead to radioactive contamination of the groundwater.

Jessie drew up a petition demanding the government deny Kerr-McGee permission to inject. She brought it to work, where people not only signed it but asked for copies to circulate themselves. In a town of 1500 people, 1000 signed the petition.

The filled petitions were mailed to politicians and health officials who responded by assuring her of the safety of the process. For Jessie, it was clear that the time had come to organize for a fight. Thus began NACE.

NACE is committed to educating the community to the hazards intrinsic to the nuclear industry. Public meetings were organized, newsletters circulated, and within 8 months Kerr-McGee had withdrawn its application for the injection wells.

Under Jessie's leadership, NACE has enlarged its focus from opposing the contamination of their immediate area to opposing the contamination of the entire earth by the nuclear industry. They remain committed to raising consciousness concerning environmental issues and strengthening their own ability to secure a clean earth for future generations.

When asked what it is like to work in Oklahoma against the nuclear industry, Jessie summed it up by saying that Robert Kerr, Jr., has been appointed chairman of the Oklahoma Water Resources Board—the agency which issues permits for dumping!

For more information write the Native Americans for a Clean Environment, PO Box 40, Marble City, OK 74945, (918) 458-4322.

Jean Fazzino

DAN AGENT

Jessie DeerInWater with Native American singer Roy Westpermon.

KERR-MCGEE/continued

pointed him to the General Advisory Committee of the US Arms Control and Disarmament Agency.

Kerr-McGee—the Polluter

Kerr-McGee is a far-reaching polluter with a long history of disregard for its workers and the environment.

In the wake of its processing, Kerr-McGee has left 35 million tons of radioactive waste at various processing sites throughout the U.S., not including the waste already shipped off to dumps. Portions of 11 states have been contaminated by Kerr-McGee. The waste has been left in abandoned pit mines, former factories and labs, ponds, rivers and on farm lands.

For example, the Sequoyah plant has released vast quantities of radioactive materials to environment, has had several fires that Kerr-McGee initially failed to report, had chemical and nuclear explosions killing 1 person and vaporizing 75 pounds of thorium. It is the site of hundreds of uranium spills and leaks, loose uranium trioxide powder spread over entire floor of second story, and 15,000 pounds of uranium a year pumped into a ditch leading to the Illinois River.

Though the Cimarron (Oklahoma) plants where Silkwood worked closed in 1975, rampant contamination and workers' overexposure continued.

Personnel decommissioning these plants worked without respirators, thus were exposed to airborne radiation. Their clothes changing areas were consistently contaminated. Regardless, the Nuclear Regulatory Commission refused to respond to these complaints as well as the charge that Kerr-McGee was illegally burying waste on the site.

Jean Fazzino

We would like to thank Charles Barnes for providing us the documentation used in writing this brief profile.

Victory in New Mexico

WIPP Site Delayed

By Jennifer Tichenor

The Department of Energy announced on September 13 that it was "indefinitely" postponing the opening of its Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico.

The Plant was to begin receiving plutonium-contaminated waste for underground storage this October. New Mexico organizers hail this development as the latest setback in the facility's 17-year history, but certainly not the last.

The resistance to the site has been persistent. The Southwest Research and Information Center in Albuquerque has been working against the facility since 1977, and the Citizens for Alternatives to Radioactive Dumping (CARD) have been active for almost as long.

Don Hancock of Southwest Research says that the first years of his group's work were frustrating, as New Mexico could muster little leverage against a federal project. Though "citizens have been active for over a decade," says Hancock, "it has only been recently that real opportunities for citizen participation have opened up." Several recent events helped turn the momentum against the site:

Resistance to the site has been persistent.

- In 1987 the Committee To Make WIPP Safe was formed. This organization brought together local scientists and health professionals, thus lifting the discussion of WIPP's problems onto a more "respectable" plane.
- A hearing in Carlsbad on legislation giving the Department of Energy title to the WIPP site land met with so much unexpected resistance that officials were blown "out of the water," according to Hancock.
- The national media's extensive coverage of the National Academy of Sciences' 1987 study on brine seepage into WIPP's subterranean chambers escalated opposition.

Citizens Step Up Organizing

During 1988, activists organized letter-writing campaigns to New Mexico representatives, put together a June

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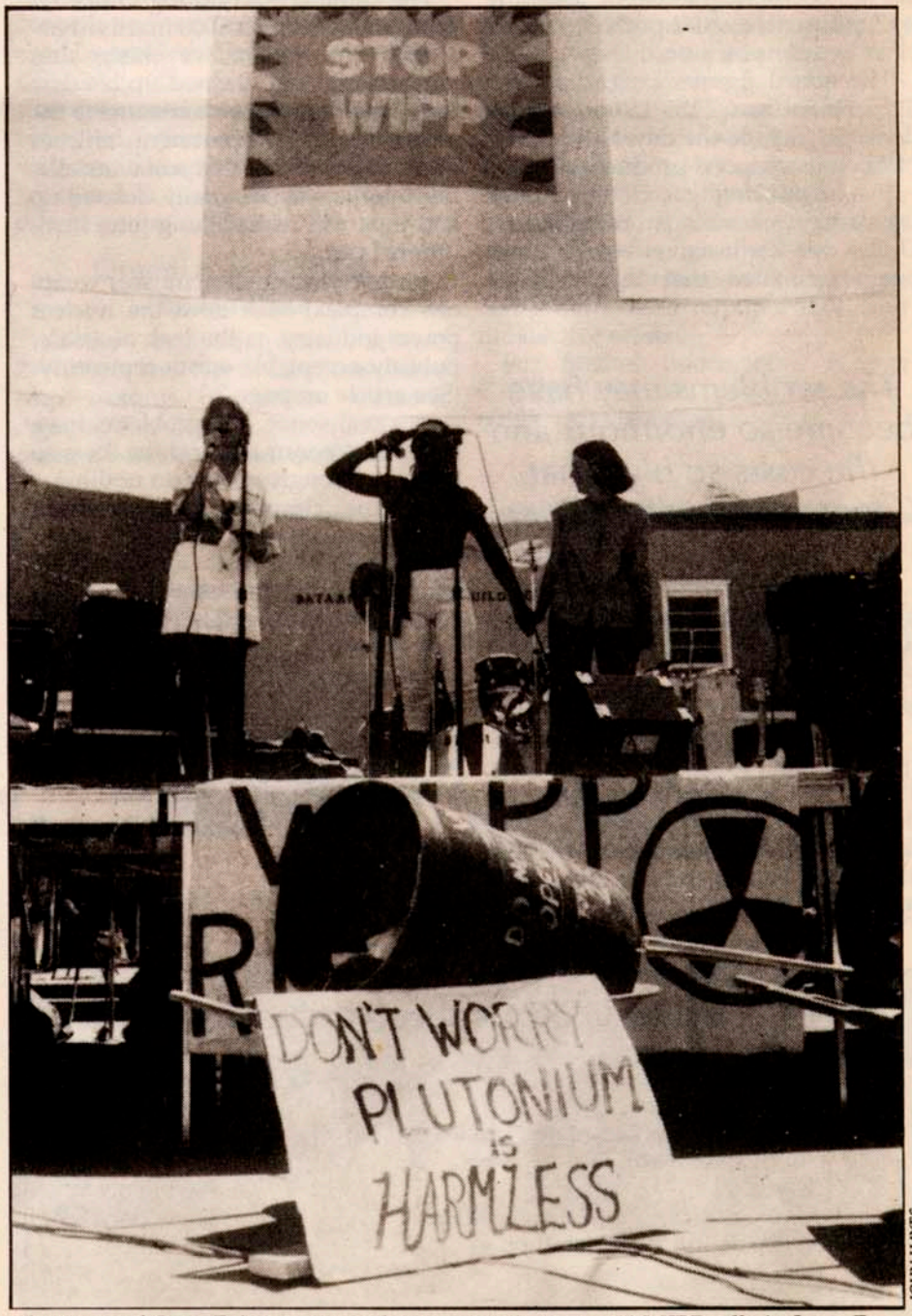


JOHN HAYES

She-Bop and Joan Price on stage during the July 1988 anti-WIPP rally in Santa Fe.

Jennifer Tichenor is the assistant director of the Radioactive Waste Campaign.

The Big Clean-Up

The Nuclear Weapons Complex Shows Its Age

What with inflation, it's hard to buy anything for $100 billion anymore. Still, if a car costs $10,000, that would be 10 million cars; or if a home costs $100,000, then 1 million homes for the homeless could be built.

Instead, according to figures released by the Department of Energy, and reviewed by the General Accounting Office, this is the cost of "cleaning up" radioactive waste problems at nuclear weapons facilities.

The actual figures range between $115 billion and $155 billion, which does not include the day-to-day costs of nuclear weapons production.

In a July 8 briefing to Congressional legislative assistants in Washington, D.C., the Radioactive Waste Campaign estimated that these figures were too low by at least 50 percent. As Bob Alvarez, of the Environmental Policy Institute, put it, "At these prices, it's cheaper to produce TNT."

The problems may have become so enormous and the costs so high that Congress may do nothing.

Much of the nuclear weapons complex was built in the 1940's and early 1950's, and has approached the end of its useful life. In addition, many facilities were constructed to less stringent safety standards than exist today.

At an unusual joint Senate/House hearing September 30, Energy Department contractor Dupont admitted that nuclear reactors at the Savannah River Plant had suffered partial meltdowns which led to contamination of the Savannah River swamp. The public was never informed of these meltdowns.

The General Accounting Office report states that over 1000 inactive hazardous and radioactive waste sites "may need to be cleaned up because they are releasing contaminants to the environment." Department officials even acknowledge that some installations may never be totally cleaned up and thus will require long-term institutional care.

Further plaguing the nuclear weapons complex, as it does the nuclear power industry, is the lack of a safe, publicly acceptable waste repository. (See article on page 7.)

In a real sense, the problems have become so enormous and the costs so high that Congress may do nothing.

On the cleanup issue, environmental activists and plant workers can join together. Clearly thousands of jobs will be created over the next 25 years as the Department cleans up the past 40 years of sloppy practices.

The report, "Dealing with Problems in the Nuclear Defense Complex Expected to Cost Over $100 Billion," can be obtained from the General Accounting Office, (202) 275-6241.

Marvin Resnikoff

CLEAN-UP AND FIX-UP OF THE NUCLEAR WEAPONS COMPLEX

Decontamination	$15 billion
Disposal	
plutonium-contaminated waste	$10 billion
high-level waste	$20 billion
Clean-up	$35-$65 billion
Upgrade safety of present facilities	$20 billion
Consolidation and construction	$15-$25 billion
TOTAL	$115-$155 billion

LETTER

Mina Correction

Dear Editor,

Thank you for the kind words in your article "Mina Hamilton Resigns as Director."

I would like, however, to correct an error. In regards to the battle to stop the Tocks Island Dam, the statement "she halted the dam" gives the inaccurate impression that I alone was responsible for stopping this environmental disaster. *Waste Paper* readers should know I was one of *several* key leaders whose cooperative efforts were successful in killing the dam.

Minard Hamilton

EDITORIAL/continued

how much nuclear fuel would be moving on the highway.

A wiser course is available, but it makes little money for utilities and their suppliers—it's called conservation. Change all the light bulbs in America to the most efficient ones,

A wiser course is available—conservation.

and 40 large coal-fired plants could be shut down. Double the efficiency of U.S. cars from the present 18 miles per gallon to 36, and automobile carbon emissions could be cut in half.

The list of energy conservation measures is long. The basic concept is that a dollar spent on efficiency can displace much more carbon dioxide than a dollar spent on nukes.

The radon and greenhouse effects are real. The latest proposed solution, more nukes, is hype.

MOVING?

Send us your new address.
Don't miss a single issue.

Super Collider Meets Resistance In Illinois

By John Ross

In mid-November the Department of Energy will make its final site selection for the Superconducting Super Collider. The seven states still in the running—Arizona, Colorado, Illinois, Michigan, North Carolina, Tennessee, and Texas—are falling all over themselves to grab what they see as a financial plum. But all may not be as it seems.

What Is the Super Collider?

This project, the largest scientific instrument ever built, would be a laboratory facility for the study of high energy physics. The collider would be capable of accelerating 2 beams of protons to an energy of 20 trillion electron volts. The main structure would be a 53-mile long oval accelerator tunnel located at least 30 feet underground.

The cost of the project to the federal government is expected to be somewhere between $4 and $10 billion.

Radioactive Waste and Hazard

The Tennessee Sierra Club in a May 1988 report raised concerns about airborne and groundwater radionuclides from the collider. They feel that the Department of Energy's assurance of the safety of citizens living off-site at Fermilab (used as a model for the Collider) was based on too low an average annual site boundary dose.

The Department of Energy's estimate of 8,000 cubic feet of "low-level" radioactive waste generated annually for the Collider (using Fermilab as a model) is disputed by Lawrence Jacobi of the Texas Low-Level Radioactive Waste Disposal Authority. Jacobi puts the figure at 30,000 cubic feet of radioactive and mixed waste. He notes that the Collider "is 12 times as large as Fermilab ... [and] the 8,000 cubic feet of waste reported by the Fermilab is the average volume shipped annually, not the volume produced." Some estimates place the annual waste to be as much as 65,000 cubic feet.

With a range of 8,000 to 65,000 cubic feet, if located in Illinois, the Collider would produce from 4 to 29 percent of the state's total volume of "low-level" radioactive waste.

There is also concern about the on-site storage of "low-level" and mixed radioactive waste. Because of tighter controls on mixed waste, off-site storage is a problem. For example, at Fermilab old radioactive parts from other sites are stored in what is called "the boneyard." According to the 1987 environmental report for Fermilab, the boneyard is "the primary source of off-site gamma radiation."

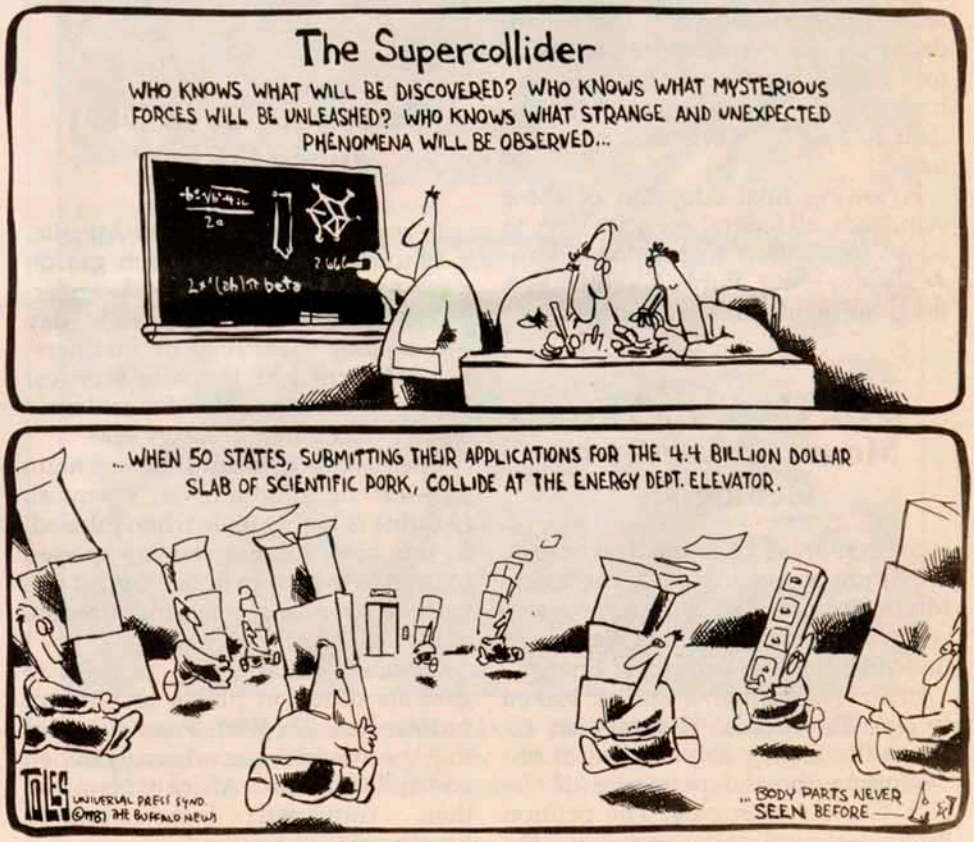
Organizing Against the Collider

Of the 7 competing states, at least 2—Illinois and North Carolina—have some serious opposition. Citizens Against The Collider Here (CATCH), a name borrowed from the New York state group which succeeded in getting New York out of the running, coordinates the opposition in each state.

In Illinois, of the 1400 letters sent to the Department of Energy on the Collider, 1100 opposed the project. In North Carolina, 360 of the 390 letters sent were opposed.

Among the concerns raised were: residential relocation, taking of farmlands, impact on the educational system, changes in scenic and visual character, road and congestion problems, tax base changes, property value changes, health and safety concerns, loss of critical habitats, impacts to endangered species, increased demand for water, groundwater withdrawal and contamination, airborne and groundwater radionuclides, and radioactive waste.

For further information, contact CATCH, PO Box 104, Wasco, IL 60183, (312) 584-4244.



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John Ross, who lives in Batavia, is a computer programmer and an active opponent of the Super Collider. Ross is also a candidate for the Illinois state legislature.

RADSCOPE

New EPA Standards May Send Radwaste to City Dumps

In September, the Environmental Protection Agency announced new standards for disposal of "low-level" waste which could send up to 34 percent of the nation's "low-level" waste to municipal landfills, rather than "low-level" waste facilities.

The standards relate to allowable radiation doses from "disposal" facilities and the minimum radiation levels necessary for waste to be regulated. The effect will be to increase the allowable radiation the public will receive.

Environmental organizations, who anticipated the standards would be 1 millirem per year or less, were surprised when the Agency proposed that radwaste 4 millirems per year or less be classified as "below regulatory concern."

This maneuver could save nuclear waste generators $620 million over the next 20 years.

The proposed allowable radiation limits from waste "disposal" facilities are 25 millirems per year. These standards are an extension of standards for management and storage, and have already been incorporated in Nuclear Regulatory Commission regulations.

Following final adoption of these standards, all federal agencies have to adopt regulations to put these standards into effect. Public comments on the draft regulations are encouraged.

DOE Hampers Yucca Mountain Survey by Geologists

Several areas of research, critically important to evaluation of the Yucca Mountain site as a high-level waste repository, have been delayed or halted by the Department of Energy.

In an internal memorandum leaked to Nevada officials, 17 geologists accused the Energy Department of undercutting the independence of the U.S. Geological Survey. The petition listed technical deficiencies in the characterization program, major overcharges and stopwork orders by the Department.

Reminiscent of overcharges by military contractors, the Survey was billed $75,000 by the Department of Energy to remove 14 rocks from an underground tunnel—about 10 times what the Survey would pay elsewhere.

The Department halted the investigation of water-table fluctuations and air flows above the site. Water-table fluctuations relate to active movement of faults or volcanic activity in the immediate vicinity of the proposed repository. Active faults or volcanic activity would rule the site off limits for a repository. Air circulation relates to the accelerated discharge of carbon-14 into the air from the proposed repository.

With the strong backing of Congress to locate the repository in Nevada, it is not clear that the Department of Energy cares whether a handful of geologists are worried about the scientific validity of its characterization program.

To obtain a copy of the U.S. Geological Survey memo, send a $1 to the Radioactive Waste Campaign.

Uranium Gas in Davy Jones Locker?

In rough waters in the mid-Atlantic, a 14-ton canister of uranium gas on route to the United States rolled overboard. The news was reported in May in a weekly sheet read by mariners, but not carried by the wire services. It is apparently common for container ships to lose cargo in heavy seas.

The primary hazard of uranium gas—or hexafluoride—is chemical. Fluorine is highly toxic when inhaled. In this case, the canister is expected to drop to the ocean floor where it will corrode over time, releasing uranium to the Atlantic.

Uranium hexafluoride is used in gaseous diffusion plants to produce nuclear fuel. *The Waste Paper* surmises that the uranium was originally mined and milled in South Africa or Namibia, then converted into uranium hexafluoride in England.

Remedial Merit Badges for Nuclear Truckers?

On May 13, according to the Nuclear Regulatory Commission, another radiographic device, containing 40 curies of iridium-192, dropped out of a moving truck.

The accident which occurred in Houston, Texas, was similar to others which *the Waste Paper* has carried. The unsecured package fell out the back end of the truck, where it was subsequently struck by another vehicle.

The radiation levels for radiographic devices are very high if the source, which looks like a polished jewel, is separated from its shielding. The Nuclear Regulatory Commission has sent out yet another notice to licensees requesting that packages be securely tied down.

A call has gone out to Boy Scouts in the Houston area to train licensees in tying square knots and other means of securing radiation sources, and to local locksmiths to develop locks which close. As is customary, licensees have complained of the additional cost and paperwork.

Nuclear Ammo?

Large quantities of depleted uranium exist in government inventories in the form of "green salt" (uranium hexafluoride). To dispose of this "low-level" waste, a by-product of the overall uranium refining process, the government has called on private industry for help.

Honeywell (in Minnetonka, MN) and Aerojet Ordnance (in Downey, CA) produce 3 types of 30mm ammunition cartridges using "depleted uranium penetrators": armor-piercing incendiary, high-explosive incendiary, and target practice cartridges. About 2 million of such cartridges are manufactured each year for use in the Air Force's GAU-8 gun.

Because of its greater mass, depleted uranium (uranium-238) is an effective "tank killer." And the uranium is cheaper than its predecessor, tungsten.

At the onset of the GAU-8 ammunition program little was known about

the techniques for forming and machining this metal. Live-firing testing in combat-type maneuvers at Nellis Air Force Base in Nevada differed from the usual factory and firing range testing.

Depleted uranium is now being applied to a wider ranger of ammunition calibers such as 20mm, 105mm, and in shape-charged, self-forging fragment warheads.

Furthermore, Kerr-McGee is seeking to produce uranium tetrafluoride at its Sequoyah, Oklahoma, Plant to manufacture uranium penetrator missiles for the Army.

Hot Laundry

Normally, radioactive sludge obtained from reactor water clean-up is pumped into a liner and solidified at the reactor site, before being transported to a landfill. So what happens if contaminated laundry waste water is added to the sludges?

According to the Nuclear Regulatory Commission, the mixture heated up to greater than 240°F. "The mixture began to expand, overflowing the liner ... and over the side of the container. This overflow then hardened and had to be chipped away. The maximum dose rate of the overflow was 3 rem per hour."

The incident occurred at Tennessee Valley Authority's Sequoyah Nuclear Plant. The Nuclear Regulatory Commission is attempting to learn whether this secret formulation has commercial application.

A Nuclear-Free Olympics?

By Bill Shutkin

Earth First!, in an effort to force the shutdown of the world's first commercial-size breeder reactor at Malville, France, has called upon activists to put pressure on the International Olympic Committee to change the site of the 1992 Olympic games to be held at Albertville, some 44 miles from the reactor.

Earth First! claims that the proximity of the 1200 megawatt Superphenix reactor makes Albertville an unsuitable, if not unsafe, location for the games.

The reasons are 3-fold. First, the environmental groups claims the danger of a nuclear accident is substantial. The Superphenix contains 5 tons of plutonium and 5000 tons of sodium coolant, water and steam. Sodium fires, caused by the contact of sodium with air or water, remains a problem for French engineers as they are as yet unable to extinguish fully such fires. A leak in the steam generator could cause a sodium fire which, in turn, would release radioactive sodium and plutonium over thousands of square miles, including Albertville. Further, Earth First! believes the reactor could undergo a nuclear explosion like that of Chernobyl. For if coolant around the fuel were suddenly lost, control bars could not prevent an increase in the rate of fission.

Second, the group asserts that nuclear terrorism poses a real danger. At the Los Angeles Summer games in 1984, a research reactor at UCLA was shutdown on account of fear of terrorism. Also, terrorists have been more active in France than in the U.S., thus justifying the concern. The International Task Force on the Prevention of Nuclear Terrorism, Earth First! points out, has stated that the chances of nuclear terrorism are increasing.

The 1992 Olympics are within 50 miles of the French breeder reactor.

Lastly, Earth First! sees the reactor as contributing to the threat of nuclear war. And, as the Games would draw electricity from the Superphenix, they too would indirectly enhance this possibility. The French government has not denied that it will use plutonium

3000 Rally in Michigan

On August 4, 3000 people attended a "Don't Waste Michigan" rally in Hillsdale, Michigan. Participants were urging the state to pull out of the 7-state Midwest Compact for "low-level" radioactive waste. Michigan has been designated as the host state for the Compact.

from the breeder for warheads. Moreover, the group claims that France has little or no need for the electricity generated by the reactor. The CFDT labor union, Earth First! reports, estimates that by 1990 France will have at least 14 gigawatts of overcapacity.

Earth First! is intent upon making all us citizens aware of the danger not only from the Superphenix and its proximity to Albertville but from nuclear war and energy.

To request a site change for the 1992 Games, write Mme. Francoise Zweifel, Gen. Sec., 10C, Chateau de Vidy, CH-1007 Lausanne, Switzerland. Send copies of the request to General George D. Miller, Sec. General, USOC, 1750 E. Boulder St., Colorado Springs, CO 80909, and Michel Barnier, Président du Comité d'Organisation des Jeux Olympiques, Prefecture de la Savoie, 73000 Chambéry, France.

Bill Shutkin, formerly an intern for the Campaign, is currently in law school.

"Test Flight" of Texas Reactor

Faced with troublesome economics in its nuclear operations, Houston Power and Light Co. has for some time attempted to diversify. On May 25, the utility's classified nuclear "airplane" project came to a crashing halt when the South Texas Project, Unit 1 reactor, failed to lift off during an unscheduled "flight test."

While the project is wrapped in secrecy, this much is known. A turbine shaft, part of the feedwater pump, was sheared off, thrown free and landed in the station yard.

Unit 1 has three feedwater pumps which supply water to the reactor. At the time, the feedwater pump was spinning at 6000 rpm or higher, close to take-off speed. Knowledgeable observers believe Houston Power was attempting to accelerate the three pumps preparatory to "lift-off," but the reactor was apparently too heavy. Due to excess torque, the pump shaft then snapped. No casualties were reported.

The trajectory was too low to be seen by air traffic controllers on radar at the Dallas-Fort Worth airport. It was not clear whether Unit 1 nuclear engineers had valid pilot licenses, or whether flight plans were filed, but the National Transportation Safety Board is investigating the aborted flight.

According to a highly placed source within the company, "We'll have to go back to the drawing boards on this one."

As is customary, important information, considered proprietary, was withheld by the Nuclear Regulatory Commission. The Radioactive Waste Campaign has filed a Freedom of Information Act request for the flight plans and pilot licenses.

WIPP/continued

march and rally drawing 3,000 people, and held a news conference when the Department of Energy brought its shipping cask display to local residents.

Some citizens' actions have been quite creative. For example, public school teacher Priscilla Logan began a campaign that resulted in Santa Fe school children taking a letter about the WIPP site home to their parents.

The Santa Fe-based Concerned Citizens for Nuclear Safety has developed projects involving local businesses, such as "Business Against WIPP Day" on which 178 businesses donated 5 percent of their gross receipts for that day to the anti-WIPP forces. In addition, they organized over 70 businesses to buy radio ads opposing the waste site.

A recent survey asked what residents thought was "the single most important issue in Santa Fe." The WIPP site topped the list—yet it hadn't even been among the survey's options!

More Problems for WIPP

Several major obstacles still face the WIPP site. Last summer, government scientists and engineers visited the site and found that the managers had no documentation that the ventilation and elevator shafts, fire prevention systems, electrical circuits, waste handling systems and other facilities were built correctly and could function properly. They also learned that a pipe in the fire control system had ruptured in June 1986, causing up to $200,000 in damage. "This occurrence raises questions about general construction quality," the engineers wrote.

Furthermore, because most of the waste scheduled to go to the facility will be "mixed"—combined radioactive and chemical wastes—it must meet stricter state and federal regulations before a permit can be issued.

In addition, the TRUPACT II shipping containers failed their tests in 1987. Thus, these containers, intended to be used in 1500 shipments a year for 20 years to the WIPP site alone, could not be certified by the Nuclear Regulatory Commission.

On top of all this, New Mexico has had the most radioactive waste shipping accidents of any state, and local emergency preparedness planning is months behind schedule.

Southwest Research's Hancock does feel that "this recent turn of events is substantially due to citizen pressure." But he has no illusions about the recent Energy Department action sounding the death knell for the $700 million government facility.

As Myla Reson, activist with Concerned Citizens, says, "It has taken years of work and the efforts of thousands of people working against WIPP to get us where we are now. We are in this fight to stay."

CORRECTION

In the Summer *Waste Paper*, the food irradiation article mistakenly stated that New Jersey had passed legislation prohibiting the sale of irradiated food. Though overwhelmingly supported by both New Jersey houses, legislation banning the sale of irradiated food was pocket vetoed by Gov. Tom Kean. Kean refused to sign the legislation on the advice of the Commissioner of the Department of Health, Molly Coyle. As of this writing (Sept. 1988), new legislation seeking a ban is before the state assembly after having passed the senate. Thanks to Food and Water, Inc. (225 Lafayette Street, Rm. 612, New York, NY 10012) for pointing this correction.

Whatever Happened to Three Mile Island?

By Jean Fazzino

Ever wonder what has been happening at Three Mile Island lately? Well, repercussions from the notorious accident persist.

As a result of that March 28, 1979, accident and subsequent clean up, there are 2.3 million gallons of radioactive water which continue to be chemically processed for reuse; making it even hotter, while no safe disposal exists.

In addition, there are almost 300,000 pounds of highly radioactive debris from the core which are being moved more than 2700 miles by rail across 10 states for temporary storage at the Idaho National Engineering Laboratory (INEL).

In its travel, this deadly cargo comes within a half mile of 1 million people. The Department of Energy has assured the public that the shipments are "safe, secure, and well monitored."

Initially, the Energy Department said it would take 15 percent of the core debris for research, leaving the rest in the storage pool at the reactor. Then the Department announced that the entire core would be taken to a government facility to decide which portions would be most suitable for research and development programs.

Finally, the Department of Energy (DOE) chose the Idaho facility again saying the fuel has significant research potential in that it is different from ordinary fuel and researchers should have ready access to it. The DOE stated that the core and fuel in its damaged state is too unpredictable to stay at the reactor, but not too unpredictable to travel.

Meanwhile, the estimated cost and duration of cleanup rose from $140 million in 2 to 3 years (1979) to $960 million and 10 years (1988). In addition, the costs for temporary storage at INEL are $660,000 a year. But this could climb to almost $20 million while waiting for a permanent repository. General Public Utilities, which operates the Three Mile Island reactors, says that it is unable to solely finance the cleanup.

Moving fuel under the auspices of research allows the government to make the whole venture appear legitimate. Yet, for research purposes 150 pounds of this extremely hot material is needed to achieve a critical mass. Only a tiny part of this unique specimen has actually been used for research at INEL. Most is put into another storage pool to await yet another trip to an as yet undesignated permanent repository.

This deadly cargo comes within 1/2 mile of 1 million people.

Successfully transporting the high-level waste to INEL (Hanford gets the "low-level" waste) would achieve 2 purposes for the Energy Department: first, the radioactive mess gets cleared out of Three Mile Island; second, the government "proves" it can safely ship nuclear wastes anywhere.

The Department of Energy has considered 5 itineraries for the shipments, basing its decisions solely on the quality of track. The Department reasons that the casks carrying the wastes are designed to prevent release of radioactivity, therefore travel through highly populated areas is not a problem.

Calls by concerned citizens for environmental impact studies on project technology were met with assurances from the government that adequate studies had been carried out. Actually there has been no full scale testing of the casks, only computer simulation and tests on quarter-scale models. Within 2 months of NRC approval of the canisters (inside the casks), the DOE requested a change of "O" rings from metal to plastic, without proving that any testing was done on the plastic ones.

Even disregarding the extreme danger involved in the transport, there are a few more interesting twists to this tale.

The Department of Energy does not have title to the TMI fuel core and has not been authorized by Congress to transport it. The DOE is bypassing congressional process by transporting it.

The federal government is strictly forbidden from taking possession of irradiated fuel until a permanent high-level repository can be built. The Nuclear Regulatory Commission violated the National Energy Policy Act by failing to prepare supplemental environmental impact statements specifically addressing the shipment and storage of the fuel core assembly.

Furthermore, INEL does not have the necessary license from the NRC to conduct interim storage of high-level radioactive waste as required by the Atomic Energy Act and the Nuclear Waste Policy Act. INEL, a weapons research facility, is forbidden by law from commingling military and civilian nuclear waste.

From July 20, 1986, through June 1988, there have been 16 shipments. Most recent shipments contained 30,000 pounds of radioactive debris each, within 3 separate casks. The last shipment of the core had been scheduled for March 1989. However, last September the shipments were put on hold because of a faulty plug in the cannisters.

And the water? The utility wants to boil it, evaporating the water then vent the radioactive steam into the atmosphere.

Activists are pressing Congress and the Department of Energy for hearings to address the route, legality of the shipments and storage, and the safety of casks. A serious and dangerous precedent is being set.

For more information, contact Three Mile Island Alert, 315 Peffer Street, Harrisburg, PA 17102, (717) 233-7897; Citizens Against Radioactive Transport, 267 Delmar Blvd., St. Louis, MO 63130; Susquehana Valley Alliance, PO Box 1012, Lancaster, PA 17604, (717) 394-2382.

Jean Fazzino is the Radioactive Waste Campaign's organizer.

REVIEWS

"Radium City"

During the Depression, 14- to 17-year old girls in Ottawa, Illinois were photographed near fancy automobiles, wearing fur coats. Their happiness is still clear some 60 years later: teenage friends, excited about the present and the future. Few of these girls are alive now. One, Marie Rossiter, whose legs are crippled and swollen believes God has left her here to tell their story.

"Radium City," directed and produced in 1987 by Carole Langer, is a nightmarish film. Those dead girls' bodies are still radioactive in their graves. And what happened is neither an isolated incident nor a situation that has been corrected. There are 140 cities like Ottawa and people still trade life and health for money.

Two workers at the Radium Chemical factory in Ottawa, Illinois.

In 1922, Joseph Kelly brought his company Radium Chemical to Ottawa. He set up shop in the high school were there was a virtually endless supply of workers.

Teenage girls were trained to paint the faces of clocks and watches with radium. They spent their days dipping the brushes into the radioactive paint and using the tips of their tongues to form a perfect point.

"Radium City" is a nightmarish film.

Then they started getting sick, developing tumors and dying. They became known as the "Living Dead." Shocking film footage from this era shows radium being touted as the miracle drug, the girls painted their faces with it for fun.

A lawsuit in the 1940's caused the company to quietly close yet it reopened 4 blocks away under a new name, Luminous Process, and with the promise of being safe.

In 1943 President Roosevelt and Albert Einstein met with Joseph Kelly, then the largest importer of radium and uranium in the United States. Kelly began supplying the Department of War and sat on the board of The Manhattan Project. In 1948 the Atomic Energy Committee established Argonne National Labs, 50 miles from Ottawa. Argonne has conducted extensive radiological experiments on bodies of the dead and the surviving women. It has never released any results.

The radium painters tried to fight but lawyers and doctors refused to support their cases. Luminous Process was eventually closed only after the building had been used as a meat locker. In the process of demolition and decontamination people were encouraged to scavenge bricks and other materials from the site.

Now, Ottawa's water is contaminated with radium and 18 children have been diagnosed as having cancer.

To read the history of this town is terrifying but to hear and see people who have suffered for so long is devastating. Throughout this documentary, the film captures the survivors' struggle to understand the events they relay. As viewers we are challenged to look beyond staged sequences into sincere eyes. Relatives tell of girls whose bones were honeycombed—never to heal. They speak of pain, death, and grief in the quiet resolve of people unwilling to make waves. Ken Ricci has been laughed at for taking his geiger counter around town. He says he feels proud, the government has found the same hot spots as he has.

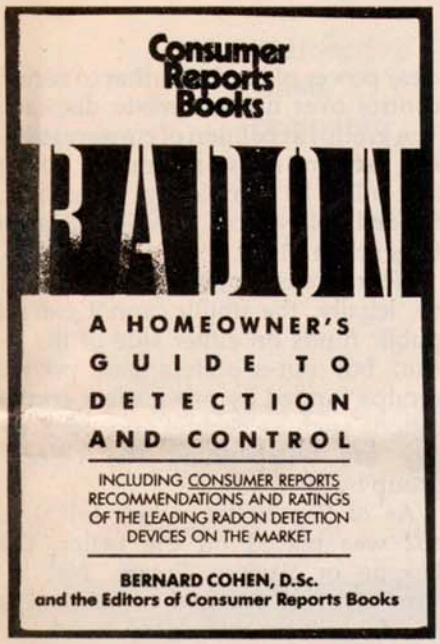
Radium City is a vehicle of human emotion. It cannot be viewed with detachment. Its strength is in its power to force us to share in the horror of the "Legion of the Doomed" and to be outraged by the history—past and present. We are left in anger and sadness to wonder why.

Radiological experiments were conducted on the bodies of the women.

For more information on this 100-minute film, contact Carole Langer Productions, 28 Greene Street, New York, NY 10013, (212) 925-1599.

Jean Fazzino

Gimme Shelter



A Review of ***Radon: A Homeowner's Guide to Detection and Control,*** *Bernard L. Cohen, Consumers Union, Mount Vernon, New York, 215 p., 1987.*

With concern about radon rising to a fever pitch (see editorial on page 2), an objective informative book about radon and radiation hazards would have been a tremendous service by Consumers Union. The book, by the nuclear power zealot Bernie Cohen, is timely and useful, but clouded by the author's unsubstantiated theories of radiation hazard.

The book is clouded by the author's unsubstantiated theories.

The current resurgence of concern dates back to the day in 1985 when Stanley Watras, nuclear worker at the Limerick Plant near Pottstown, Pennsylvania, set off radiation alarms entering the plant. His home was found to have radon concentrations 30 times the average levels *of a uranium mine.* Though not known by name at the time, concern about radon goes as far back as the 16th Century, when radon in mines caused "mountain sickness."

The author provides a general introduction to radon, the history of radiation, its ubiquitous nature, and how to detect and prevent its accumulation through ventilation and proper construction techniques.

Chapter 4, "Measuring Radon Levels," by Richard Greenhaus, Project Manager, Consumers Union, is especially useful as a nuts and bolts section on measuring devices and where to find them. The appendices are particularly helpful—listing state contacts and radiation detection services.

For many of us who have worked on radiation-related issues, it is difficult to objectively review a book by this author. We know his views on radiation and the nuclear power industry.

For example, radon is "believed to be an important cause of lung cancer." Yes, I'm a believer.

On radiation, "some people worry about radiation exposure from diagnostic X-rays." All reputable health physicists would say the more radiation exposure, the more likely to develop cancer.

And on nuclear power, Cohen claims that a lifetime's worth of radon inhalation provides less exposure than those exposed during the first 36 hours near the Chernobyl accident. Aside from the fact that the Chernobyl radiation source, cesium, is different from radon, and that most people don't live a lifetime, 24 hours a day, in their basements, the Chernobyl accident may cause one million deaths. That's not nothing.

A section of the book is devoted to Bernie's home-grown theory of radiation health effects, that low doses of radiation are okay because of the body's repair mechanisms, a theory which fits neatly within the views of the nuclear industry. But how low is low? The answer holds the key to understanding cancer, and a Nobel Prize for Bernie. Don't hold your breath.

So, if you can get past all this claptrap, and nuclear industry propaganda, you'll find this book useful. I expected a little better from Consumers Union.

Marvin Resnikoff

Nuclear Referenda on the November Ballot

By Jean Fazzino

From 1972 through 1984 there were 20 state-wide ballot measures aimed at shutting down nuclear power plants. Citizen groups won 13 of them, though outspent by the pro-nuclear forces usually by 10 to 1, in one case 325 to 1! Clearly, this is an important issue for utilities as well as voters.

This November, 2 states will carry referenda focussing on nuclear power.

Massachusetts. On August 11, 1988, the Massachusetts supreme court, in a sharply divided decision, permitted a binding referendum to remain on the November ballot. If passed, the Stop the Nuclear Waste Act would cause the retirement of the 28-year-old Yankee Rowe plant in the Berkshire Mountains, and permanently close the 16-year-old Pilgrim reactor in Plymouth.

Every day Pilgrim and Yankee Rowe generate 150 pounds of high-level radioactive waste. In addition, 750,000 pounds of waste are sitting in temporary storage pools with no proven method for safe disposal.

Citizens have exhausted virtually every possible means of closing the plants, addressing their concerns to the Nuclear Regulatory Commission, the Massachusetts Department of Public Utilities and the state legislature. Now the people will determine the state's energy future by vote.

Massachusetts Citizens for Safe Energy is a (non-nuclear) powerhouse: educating the public through community meetings, rallies, leafletting, phone calling, bicycling through out the state (Solar Rollers), and publishing a newsletter ("The Power Line"). Despite a well-financed opposition, Citizens for Safe Energy feel confident that voters will pass the referendum. If so, by July 4, 1989, Pilgrim and Yankee Rowe will be shut down.

Nebraska. Out-of-state corporations continue to fight against Initiative 402. This initiative, which has met all the requirements to be on the ballot, allows voters to decide whether Nebraska should withdraw from a 5-state compact agreement for a "low-level" waste dump. It would also require voter approval before construction of such a dump.

Sam Welsch, spokesman for Nebraskans for the Right To Vote, is adamant in stating that the purpose of the group is not to shut down nuclear power plants but rather to secure control over nuclear waste disposal. The group, a coalition of conservationists, farmers, native americans, young and old, is completely grassroots, funded solely from contributions no larger than $1000.

Nebraska is a public power district so, legally, the utility cannot extend public funds on either side of the issue, but out-of-staters and private groups funded by pro-nuclear corporations such as Bechtel and US Ecology are outspending the citizens group by 20 to 1.

As of September, when Initiative 402 was placed on the ballot, the League of Women Voters, Nebraskans Against 402 and other groups had $1 million earmarked for use in ad campaigns to convince Nebraskans to relinquish their right to control nuclear pollution in their state.

For more information on these campaigns, contact Massachusetts Citizens for Safe Energy, 37 Temple Place, Boston, MA 02111, (617) 426-5556; Nebraskans for the Right To Vote, HC74, Box 76, Chadron, NE 69337.

Radioactive Waste Campaign
625 Broadway, 2nd Floor
New York, NY 10012

Address Correction Requested