

Athens, February 12, 1971.

STATE OF NEW YORK

Before the State of New York
Board on Electric Generation
Siting and the Environment

In the matter of
Case 80006

and before the Atomic Safety
and Licensing Board

in the matter of the Power Authority
of the State of New York

(Greene County Nuclear Power Plant)

THE Honorable Edward D. Cohen
Administrative Law Judge
Public Service Commission
Empire State Plaza, Albany, N.Y. 12223

The Honorable Donald F. Carson
NYS Department of Environmental Conservation
50 Wolf Road, Albany, N.Y. 12233

Dr. Richard F. Cole
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission, Washington, D.C.

Dr. George A. Ferguson
Professor of Nuclear Engineering, Howard University, Washington, D.C.

Andrew C. Goodhope, Chairman
Atomic Safety and Licensing Bd. U.S. Nuclear Regulatory
Commission, Washington D.C.

My own Testimony

Mary Berner et all
R.D.1 Box 40
Athens, N.Y. 12015



7904090319

1 My name is Mary D. Berner. I reside on Route 9 W in West Athens. I
2 studied at the Kunstgewerbe Schule (School for Arts and Crafts) in Nuerenberg,
3 Germany. I also took architectural and engineering courses in Nuerenberg. I
4 worked for a water canalization and city water works firm as the first drafts-
5 woman in the same city. After World War I, I came to this country. Here they
6 did not employ a woman for this kind of job, so I turned my talent to textile
7 design and studied further in evening courses at the Leonardo da Vinci School
8 and the New York School of Design in New York City. I did free lance work
9 while I raised my family. I also studied at New York State University at
10 Buffalo and at New Paltz. During the depression years I did illustrations
11 for the Index of American Design. Some of them are included in the book,
12 "Treasury of American Design", by Clarence P. Hornung, published by Harry N.
13 Abrams, Inc. of New York. My original watercolor renderings are stored in the
14 National Gallery in Washington, D. C. During World War II, I was working in
15 tool and die design in Eastern Aircraft located in Linden, New Jersey, and for
16 Technographic Publications, Inc. in New York City.

17 My husband and I loved the Hudson River. We chose Athens as a lovely town
18 on the river. Route 9W was not yet a big highway and the woods and the house
19 on 9W was to our liking. We moved up here in 1945. I worked for a while doing
20 free lance designs and later taught high school and elementary art for 15 years
21 in the Catskill, Hudson, and Coxsackie-Athens Central Schools. I was the bread-
22 winner most of the time, since my husband had suffered a serious accident in the
23 city. After retirement I thought I could spend time with my painting. Then
24 PASHY came along with the announcement of a power plant on the Hudson. Since I
25 have always been a nature lover and sincerely interested in the preservation of

1 nature and man's environment, I felt that it was not the thing to have more nuclear
 2 power plants on the Hudson River, which is more beautiful than the Rhine River in
 3 Germany. I had read enough about the deadly atom and nuclear power to be in revolt
 4 against them. Man has in the last 50 years done more harm to the environs than
 5 generations before us. I say that it is criminal to put these plants any where,
 6 to add radiation to the already existing pollution.

7 The NRC finds Cementon unacceptable for the planned plant because of economic
 8 and aesthetic reasons. Both reasons ring true. Olana is a great and valuable
 9 place. Athens is just as great and valuable and the view from the heights at Olana
 10 + the north, the Kap Van Winkle Bridge and the Athens Lighthouse in the middle
 11 of the river is more magnificent than looking south at two cement plants. In Athens
 12 the lower village is a historical district with the following interesting houses:

13	The Jan Van Loan House	1706
14	Albertus Van Loan House	1724
15	C. Van Loan House	1795
16	E. Titus House	1803
17	Northrup House	1803
18	Nichols House	1803
19	Height Gantly House	1812
20	First Reformed Church	1825
21	Federated Church	1833
22	Del Vecchie House	1840
23	Athens Lighthouse	1874
24	Witt Morton House	1840
25	Stuart House	1883

1 Brooks Opera House 1893

2 These houses are open to the public once or twice a year. The village of Athens
3 has a Community Center in the old high school building—built in 1900—which houses
4 two art galleries, one from the Greene County Council on the Arts and one from the
5 Greene County Arts and Crafts Guild, Inc., both with monthly changing exhibits open
6 to the public. The Center also houses a historical Museum of the Early Arts and
7 Crafts as well as implements and tools of early Athens.

8 Recently the old factory building next to the old ferry slip on River Street
9 had been demolished and the village is going to build a park along the waterfront
10 with a place for outdoor concerts in the summer time with the help of the Greene
11 County Council on the Arts. PASNY has taken a tour along the Germantown side and
12 I suggest that a tour should be taken through the village of Athens. An old beauti-
13 ful village like Athens is not a place for a nuclear or a fossil fuel plant. If you
14 really want to see out of proportion cooling towers are, look at the picture of the
15 ones at the Homer City power generation station 45 miles east of Pittsburgh, Penn.
16 You will find the picture in the issue of the National Geographic magazine for
17 June 1978. However, these towers are only 391 feet high. The ones proposed for
18 the Athens area would be 500 feet high and the circumference would also be larger.

19 According to an article in the Daily Mail, Catskill of February 6, 1974, there
20 is a geological fault in Greene County, and this is another reason why a plant
21 should not be built there. I enclose a copy of the report by Lawrence R. Matson.
22 He says the term "inactive" does not necessarily mean extinct. "Recently volcanos
23 have been found to be alive that were previously thought inactive, and some day
24 they will erupt again. We had that two years ago in Iceland. In the book by Dr.
25 Fagan of the Department of Geology at the City College of New York, the author

1 voices serious concern over the siting of nuclear plants in fault areas. Accord-
 2 ing to Fagan, the Hudson Valley contains a potential fault zone of "disastrous pro-
 3 portions" We had some shocks in Catskill as well as in Athens as previously testi-
 4 fied and the plant should not be built. Cooling towers re not only unsightly, but
 5 they are also wasters of water. Only one-half of the amount of water comes back into
 6 the river, the rest evaporates. 28 million gallons a day are drawn from the river—
 7 day in and day out.

8 The water of the Hudson River is in some communities used as drinking water, and
 9 at some time distant it may have to be used all together for that purpose.

10 News Article from The Daily Mail, Catskill, New York — April 12, 1977

11 *More Than Half of A-Plant's* 12 *Water Intake to be Evaporated*

13 CATSKILL - The proposed Greene County Nuclear Power Plant would withdraw more than 28 million gallons of water a day from the Hudson River and deposit more than half of it in the air by evaporation from its single 550 foot tall cooling tower.

14 Some 17,120,160 gallons of water a day would be evaporated into the atmosphere, according to the New York State Power Authority's application for a National Pollutant Discharge Elimination System permit. Water returned directly to the river would amount to 11,201,760 gallons a day.

15 The water will contain an estimated 2,880 gallons a day of radioactive waste and another 5,760 gallons of "potentially radioactive acidic and caustic waste."

16 Among the substances that will be discharged back into the river in the nuclear plant's effluent are ammonia, beryllium, boron, cadmium, chromium, copper, iron, lead, mercury, nickel, potassium, zinc, oil and grease, phenols, and radioactivity.

17 The \$1.1 billion facility is scheduled for operation in 1984.

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The Daily Mail

Catskill Daily Mail

The Only Daily Newspaper Published in Greene County, N. Y.

Vol. 95 No. 31

Sixteen Pages

Member Associated Press

February 6, 1974.

Catskill, N. Y.

Nuclear Plant Should Not Be Located Near Greene Fault, Geologist Warns

STONE RIDGE - An Assistant Professor of Earth Science at Ulster County Community College said recently that an ancient fault zone, thought to be as great as the San Andreas fault of California, underlies Greene and Ulster counties, and in his opinion, "It's serious enough so that a nuclear power plant should not be located anywhere near it."

Lawrence R. Matson, who will be teaching a course in Geologic History at the college this spring, said the large fault zone, called Logan's Line, will be one of the subjects studied.

Logan's Line is actually a series of faults, and not one large fissure as the name connotes, and runs beneath the St. Lawrence River, Lake Champlain, the Hudson Valley, and through Ulster County into Pennsylvania.

Although there haven't been any major earthquakes along the fault in hundreds of years, there have been relatively minor ones recently, including a tremor that jolted Catskill this summer. "It could be 1,000 or 100 or ten years before a major quake hits the area, no one can be sure," Matson said. "But the

fault line should be taken into consideration before a nuclear power plant is sited, because one atomic accident is too many."

Matson said he has been to Greene County to study geologic formations and noted "several faults in the Catskill-Leeds area." He believes a nuclear generated power plant would be "alright in the midwest where they've never had an earthquake" but should not be located in the Hudson Valley.

A progress report on power plant siting prepared Stone and Webster Engineering corporation for the New York State

Power Authority notes that the Athens site off Route 9W is located two miles west and two miles east of faults running north and south, and places the Cementon site one mile east of a number of faults and cross faults. The document states that the faults are "inactive."

UCCC's Matson, however, said the term "inactive" does not necessarily mean extinct. "Recently volcanoes have been found to be alive that were previously thought inactive, and some day they will erupt again," he explained. "The same thing is true of fault zones."

Matson pointed out that in recently published book by Dr. John Fagen, of the Department of Geology at City College of New York, the author voices serious concern over the siting of nuclear plants in fault areas. According to Fagen, the Hudson Valley contains a potential fault zone of "disastrous proportions."

"Chances are remote that a quake will occur, but if it does, it will have very serious effects if located near a nuclear reactor," Matson said. And he added, "People are not used to listening to geologists, but they will. Times are changing."

High Death Toll Is Feared In the Mining and Milling Of Uranium for A-Plants

NASHVILLE, Nov. 25 (UPI)—Hundreds of millions of people could die as the result of the mining and milling of uranium to fuel nuclear-powered generators of electricity, Representative Clifford Allen, Democrat of Tennessee, said today.

He said that a report on file with the Nuclear Regulatory Commission in Washington stated that emissions of cancer-causing radiation from the mining and milling of uranium were 100,000 times greater than previously estimated.

Mr. Allen, a frequent critic of utilities, applied his own mathematics to come up with his death toll figure from a report prepared by Dr. Walter H. Jordan, former assistant director of the Oak Ridge National Laboratory.

Dr. Jordan, who now serves as a part-time member of the Atomic Safety and Licensing Board, filed the report with the regulatory commission Sept. 21. He said in a telephone interview that his report had been based in part on a study conducted two years ago by a Cornell University physicist, Robert Pohl.

Dr. Jordan said that Mr. Allen's figures on the death toll from the release of additional radiation were correct if Mr. Pohl was correct on the biological effects of the release of additional radiation into the atmosphere.

"I know there are a lot of biologists who will disagree with Mr. Pohl," Dr. Jordan said.

New York Times

Nov. 29, 1977

America's Next Great Crisis: Water

By BASA GUSTAFSSON
Pacific News Service

Now that the country has finally acknowledged that it faces an energy crisis, Jimmy Carter is about to confront a crisis as even tougher: lack of water.

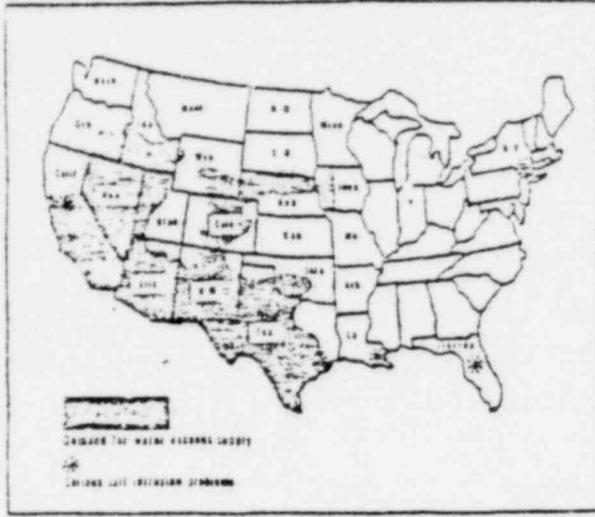
Lack of water is a crisis. There is only so much. Unlike oil, it has no substitute. And though it is renewable, it is steadily becoming scarce and expensive. The General Accounting Office recently warned of "increasing signs that the next great resource crisis—adequate water supply—may be rapidly approaching and may be a more difficult problem to solve than energy."

The crisis has been brewing for decades, quite aside from the droughts in the West and floods in the East. Carter is the first president, however, to point to water as an urgent national issue and to try to make a strategy to preserve and protect it. He is expected to announce this strategy early this year, bringing on another battle in Congress.

The water crisis is rapidly becoming a rapidly dramatic in the semi-arid Southwest, which lately has experienced the greatest population and industrial growth.

In the Texas high plains, thousands of irrigated acres of cotton may have to revert to dry grazing land within a few years when, according to some geologists, groundwater will run out. The problem is similar in western Kansas, Colorado, Arizona, Nevada and parts of California.

In the mountain states salt-water intrusion threatens underground fresh water supplies because so much water has been mined from aquifers underground reservoirs allowing sea water to enter in



AMERICA'S SPREADING WATER CRISIS

Florida, which depends mainly on groundwater because its streams are shallow and brackish, the state's principal industry is endangered. It takes very little salt water to destroy an aquifer and the damage is almost irreversible.

Because of overuse of ground water, more than a thousand square miles of land have subsided in Arizona and elsewhere.

Excessive irrigation has drained the soil to such extent

structural alternatives—not developing on a flood plain, for instance, instead of building a flood control project.

Opposition will be especially strong in the West, where Carter has already reaped anger with his first water project cancellations, as well as his Administration's attempt to enforce a long-ignored law that requires federally developed water to go only to family farmers.

Bureaucratic inertia. Federal agencies spend

approximately \$1 billion a year on water projects, not counting water quality improvement. Forty-three departments and agencies are involved, often at cross-purposes.

For instance, the Soil Conservation Service sends out alarms that two million acres of agricultural land are being destroyed each year by urban development. But the Farmers Home Administration routinely funds sewers for subdivisions on prime agricultural land. The Bureau of Reclamation encourages further irrigated agriculture on desert lands, creating a demand for more water imports that are possible only at the cost of farms elsewhere, and of antipodes the Interior Department tries to protect.

Much of the current water crisis is a result of the policies of the federal Bureau of Reclamation, created in 1902 to encourage farming by bringing water to arid lands. The bureau sells water to users at a fraction of its development cost. It thus subsidizes some growers at the expense of taxpayers, blocks incentives for conservation and ups the scales for bankrupt farmers at the expense of farmers in the mid-rich Northeast and Southeast.

Of the 120 billion gallons of water used in the U.S. daily, 70 percent goes to irrigation, mainly to states west of the Mississippi. The federal water is priced so low that farmers find it cheaper to sit back and let the soil erode than to install more efficient irrigation systems that could cut water use in half and eliminate the need for more planned water projects.

But though the federal role is great, water policy is largely under the jurisdiction of the states and counties. Here the confusion is as great or greater in general, with the various kinds, riparian and ap-

propriative. Riparian owners own a water source such as a stream or lake, a privilege known as "riparian rights."

Anyone can claim water for "reasonable and beneficial" use, much the way miners stake claims in gold. Anyone who wants to dig a well on his land may do so, even if he thereby dries out his neighbor's well.

As water becomes scarcer, such every-man-for-himself policies clearly become a major problem for the future.

A recent study by Peter Benenson of the Lawrence Berkeley Laboratory showed that industrial and residential conservation measures could cut water use by 40 percent in California. In the San Francisco Bay area that would equal the water that would be brought in by three proposed water resource transfer projects. The potential for conservation in California is really greater, but the state has been slow.

There are now growing doubts over the wisdom of trying to overcome nature by turning deserts into lush greenery. "We cannot continue to presume that as people concentrate in a particular region they will necessarily be provided with those resources they had in another region in the same amount and at the same price," warned William A. Rouse, a water specialist for the EPA.

Whether Carter manages to prod the country toward a new course or not, he is sure to create an awareness that water is neither limitless nor inexhaustible.

Industrial and agricultural chemicals have polluted much of the country's drinking water supply. Deep underground supplies, which are now considered inaccessible but might perhaps be tapped with more advanced technology, are being poisoned by infection of toxic chemicals into underground dumps.

Conflicts are budding among farmers, urban interests and nations as competition for dwindling supplies grows more intense. Meanwhile plans to extract coal and mine metals with hydraulic methods are about to place a massive new demand on the scarce water in the Southwest and the Great Plains. That demand can only be met at a heavy cost to agriculture.

In the past, the assumption has been that if there is a shortage of water in one place, more could and should be brought in from elsewhere. But so many rivers have now been drained, so many valleys dammed, that the price of continuing has grown exorbitant. Looking north for new sources now means looking to Canada and even the Arctic glaciers. And that implies a loss of national self-sufficiency.

The alternative course, the one favored by Carter, is to explore the vast potential for conservation and to encourage self-sustaining patterns of use. That implies a change in federal policies that have encouraged waste of water by providing it to users at far below cost, courtesy of the taxpayers.

One of President Carter's first actions after inauguration was to order a review of 22 major dams, flood control and irrigation projects and then cancel 14 of them. In so doing he brought upon himself the wrath of Congress for he stepped into the politically guarded territory of pork-barrel politics.

The water policy Carter is now expected to propose will

likely \$3 billion a year on water projects, not counting water quality improvement. Forty-three departments and agencies are involved, often at cross-purposes.

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... more planned water and special permits. The bill directs the way millions of federal dollars are spent.

The policy is expected to stress conservation and to call for more realistic cost accounting, requiring beneficiaries of federal water projects to pay the costs. It will also discourage projects that move water from one place to another and may require a search for non-

1 An article on "America's Next Great Crisis: Water" in The Daily Mail, Catskill,
2 New York, for January 24, 1978 shows how bad the water situation already is all
3 over the United States. I enclose the article. The drain on the river by cooling
4 towers and power plant is terrific. If the water table of the river sinks—the Hud-
5 son River will become more saline, since the swell of the tide will bring more salt
6 water further up. This condition will be bad in case the water would be needed to
7 supply drinking water. The water that has gone once through the plant is not the
8 same anymore. It is devoid of the life that was in it and it is also poison laden
9 and somewhat radioactive, unfit for plankton and fish. We can live without elec-
10 tricity but not without water.

11 Greene County is an apple and fruit growing county and the plumes from the cool-
12 ing tower will bring too much fog and dampness, which will take some sunshine away
13 for the growing of fruit. Too much dampness may bring apple scab and slugs to the
14 grape orchards, and surely some Strontium 90 onto the grass and then into the chil-
15 dren's milk. The environment is so much contaminated with poisonous chemicals that
16 we must under no circumstances add radiation to it by building these plants along
17 the river fronts.

18 I believe the nuclear power plant siting is a moral issue. If we put up plant
19 after plant, we endanger the life of the inhabitants of this earth; because with
20 every new plant there is more ionizing radiation brought into the atmosphere. It
21 is definitely proven by doctors like Dr. Irwin Bross, Dr. Thomas Mancuso, Dr. Rosalie
22 Bertell and Dr. Ernest Temglass, that low level radiation causes cancer, leukemia,
23 and makes for genetic effects, and that no level is low enough not to produce it.

24 2000 scientists, engineers, biologists, amongst them many Nobel Laureates,
25 signed a Declaration on the 39th Anniversary of the Hiroshima bombing, saying,

1 "..... The country must recognize that it now appears imprudent to move forward
2 with a rapidly expanding nuclear power plant construction program. We, therefore,
3 urge a drastic reduction in new nuclear plant construction starts before major prog-
4 ress is achieved in the required research and in resolving present controversies
5 about safety, waste disposal, and plutonium safeguards. For similar reasons, we urge
6 the nation to suspend its program of exporting nuclear plants to other countries
7 pending resolution of the national security questions associated with the use by
8 these countries of the bi-product plutonium from United States nuclear reactors."

9 (end of quote)

10 The 2000 concerned scientists and engineers, biologists and chemists, that signed
11 this declaration and presented it to the Congress and the President cannot be wrong.

12 In the 1950's, there were tests in Utah and only now they are finding out about
13 the leukemia death of children there, when it is too late. After people are sick
14 in their houses from the chemicals in the ground in the Love Canal or the radioactive
15 uranium under Denver, it is too late and some years from now it will be too late to
16 stop the cancer death that may be in the wake of nuclear power plants. Now is the
17 time to stop and go back to the old small abundant hydro plants. They can all be
18 reactivated. This generation's trouble is bigness. Everything has to be bigger—
19 bigger machines, bigger bombs, bigger and bigger power plants. The utilities made
20 the people use more and more power. All the advertisements lead the people on to
21 buy appliances. Buy, Buy! Buildings use too much light. Look at our hearing room.
22 The lights burn in the brightest sunshine. We talk conservation. Why do we not do
23 something about it. Americans are too complacent.

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1 That there is absolutely no need for more power plants is shown in the article,
2 "New York City faces new drop in jobs, people, Study Says", by a Wall Street Journal
3 staff reporter on May 16, 1977.

4 "New York's population will drop from its present level of about 7.5 million to
5 somewhere between 6.7 million and 7.2 million in the early 1980's. The commission
6 forecast employment will continue to fall off through 1985, with the city most likely
7 loosing 150,000 jobs from the present employment level of 3.2 million, but the pro-
8 jected rate of decline is substantially lower than in the past seven years."

9 On May 18, 1977 in an article by a Wall Street Journal staff reporter titled:
10 "Head of Con Edison at Meeting defends dismissing workers", it states "Con Edison
11 doesn't expect to need any new generating facilities before 1986, the chairman said
12 noting that the company predicts 2.5% annual growth in peak demand for electricity in
13 the next decade, compared with 4.5% for 1968 through 1976. If additional electrical
14 capacity is needed, Mr. Luce said, it can be obtained from New York Power Authority
15 and through the authority's contract with Hydro-Quebec for summer time power from
16 Canada." (end of quote)

17 The New York Times for May 16, 1977, in an article entitled, "New York Area Energy
18 Use Dips", says: "The metropolitan area, which has a population of 20 million, had pre-
19 viously been described by the planners as using one-third less energy for the average
20 resident than used by the average American, based on 1970 data.

21 Yesterday's report said the regions share of natural energy use had decreased from
22 6.6% in 1970 to 6% in 1975.

23 The report said 1975 calculations again demonstrated the energy-conserving nature
24 of city living. The New York State sector of the region—with two-third of its popu-
25 lation in New York City—used 20 percent less energy per person in 1975 than in New

1 Jersey Sector.

2 The New York sector's energy use dropped 7.3 percent in that period, according
3 to the new calculations, while it was suffering a 7.5 percent loss in jobs and
4 while its population went down 1.5 percent." (end of quote)

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1 In the book "Perils of the Peaceful Atom" by Richard Curtis and Elizabeth Hogan,
 2 Ballantine Books of New York, it states on page 184, "Scientists estimate that by
 3 1980 the plants producing the nation's electric power will require some two hundred
 4 billion gallons of water per day, nearly all of it for cooling purposes. As noted in
 5 Spert Fishing Institute Bulletin in the January-February 1968 issue, "This amount
 6 of water compares to an annual nationwide runoff totaling 1,200 billion gallons per
 7 day. In other words, a quantity of coolant equivalent to one-sixth of the total
 8 amount of available fresh water will be necessary, for cooling the steam electric
 9 power-producing plants. More ominously, during the two-thirds of the year when
 10 flood flows are generally lacking, about half the total fresh water runoff will be
 11 required for (steam-electric stations) cooling purposes on inland locations. On
 12 certain heavily populated and industrialized northeastern U. S. watersheds, moreover,
 13 100 percent of available flow may be passed through the various power-generating
 14 stations within the watersheds during the low flow periods." And that take us up
 15 only to 1980." (end of quote)

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I am enclosing the affidavit by John W. Gofman, MD, PhD, because I am of the opinion that the given reasons hold true for any nuclear power plant, wether it is build in Oregon or along the Hudson River. We should be more concerned and forward - thinking and phase out the nuclear mess and leave a clean environment to future generations.

10

CLAIMS NUCLEAR HAZARDS ENDANGER THE PUBLIC

From the St. Lawrence Plain Dealer Canton, N. Y. Nov. 29, 1978

EDITOR'S NOTE: This affidavit was written by John W. Gofman, MD, PhD, on behalf of some members of the non-violent Trojan Decommissioning Alliance who were arrested in November, 1977, for trying to shut down the Trojan nuclear power plant in Oregon by blocking access to it. They were charged with criminal trespass and later found guilty.

I am professor emeritus of medical physics in the University of California, Berkeley. I became a full professor there in 1954, and retained that status until taking the emeritus status. I have served as associate director of the Lawrence Livermore (Radiation) Laboratory from 1964 to 1969. I organized the biomedical program and department there, with the mission of studying the effects on man and the remainder of the biosphere from all types of nuclear energy activities. I served as the chairman of the department during the initial two years.

I hold the PhD degree in Nuclear Physical Chemistry from the University of California Berkeley, awarded for my dissertation on the discovery of U-232, U-233, Pa-232, and Pa-233, and for the discovery of the fissionability of U-233 with slow and fast neutrons. It is this last discovery that makes U-233 available for use in nuclear power plants and for use in nuclear weapons.

I also hold the MD degree from the University of California in San Francisco, California. I interned there in internal medicine.

I have taught in the field of biological effects of radiation and the application of artificial radioisotopes in medicine and biology, as well as having taught graduate courses in biological effects of radiation in cancer production as well as courses in the mechanism of cancer production.

I served as physician to the Aerojet General Nucleonics Corporation, a company manufacturing nuclear reactors and fuel elements, a position which I was selected because of my background in nuclear energy and its medical effects.

As a result of my education and research in relevant areas, I feel qualified to make the statements which follow in this affidavit.

If called upon to testify in the trial of the Trojan Decommissioning Alliance defendants, I would testify as follows:

I have carefully examined the performance of the regulatory processes in nuclear energy and conclude that these processes do not work and do not provide any protection to the public from injury by nuclear energy.

It is my opinion that the operation of the Trojan Nuclear Power Plant or any other nuclear power plant creates an immediate hazard to members of the public as a direct result of its creation of artificial radionuclides, such nuclides creating the hazard of cancer, leukemia, and genetic injury to the public.

It is a fallacy to think that an accident is necessary to create the hazard. The hazard is created the moment the radionuclides are generated in the nuclear power plant. This is so for the following reasons, my reasons being extensively supported in the research papers appended as exhibits two, three, four, five, six, and seven.

Reason One: There is no such thing as a safe dose of radiation with respect to cancer, leukemia, or genetic mutation injury.

Reason Two: All authoritative bodies have held that we must operate on the basis that there will be such injuries in proportion to accumulated dose of radiation down to the lowest doses.

Reason Three: It is not credible that

contain the radionuclides perfectly, with or without accidents. Indeed, such nuclides are released during so-called normal operation. Therefore, it follows that injury to humans is guaranteed the moment the plant starts to operate and to create the nuclides. In fact, the killing starts even before a plant operates, because the million of uranium for its fuel releases radon gas, which kills people now and for the next billion years.

Reason Four: The workers in the nuclear power plants receive a dose that will provoke genetic injury, and because of intermarriage with non-workers, this will result in the genetic degradation of the population-at-large, one of the most serious of all types of human injury. Since the workers start receiving this dose the moment the plant operates, the injury is, in effect, established the moment the plant starts to operate.

Reason Five: There has been gross public deception and public misunderstanding concerning the so-called "permissible" or "tolerance" dose of radiation. The public has been misled into believing that such doses are without medical effect, when in truth such "permissible" doses represent nothing other than a legalized permit to commit murder upon members of the population.

Reason Six: Even though the injury manifests itself after periods measured in years, the actual injury is done to the genetic materials, namely, genes and chromosomes, immediately upon radiation. Thus, it would be totally false to assume there is no immediate injury involved. The injury is immediate, is a danger now, even though visibly manifest at a later time.

Reason Seven: It is only the simplest of logic that is required to demonstrate that the essence of protection of one's health and life and those of his or her children (and their children) must necessarily reside in prevention of production of the radionuclides, since once produced, these radionuclides will guarantee the human injury and deaths. The only way to prevent the production of the radionuclides is not to have nuclear power plants operate.

Reason Eight: It may be inappropriately assumed that the operation of a nuclear plant is not an "immediate" threat to health and life. For the reasons outlined above, the threat is immediate. A simple, and highly relevant, analogy is provided in the occurrence of a fire. We do not consider it rational for one to wait to try to put out a fire simply because the flames have not started to burn our clothing or our skin. Also, we do not consider fire-fighters to be destroying property when they must hack away at furniture and other property objects and real estate in the effort to control the blaze. Property in a fire we consider the threat immediate no matter how far the flames have spread at a given moment, and we take action on this basis. The situation is no different for a nuclear power plant. Prevention of the injury and death of members of the public from the operation of a nuclear power plant is a public service. I am aware of no instance in the civilian economy where we take it as a premise that injury and murder of the members of the public is to be regarded as a beneficial act.

WHY NUCLEAR HAZARDS ENDANGER THE PUBLIC
From the St. Lawrence Plain Dealer
Nov. 29, 1978 Canton, New York

Reason Nine: Since the regulatory processes do not work to protect the public, and since the regulatory authorities continue to grant licenses for the random number of memories of the public through the licensing of nuclear power plants, it is abundantly clear that the public can count upon no protection against victimization through the regulatory process.

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1 The waste problem has taken on such proportions, that it is high time we stop
2 making this kind of waste. It is horrible that after such a long time no solution
3 for its disposal is at hand. We have no right to make future generations nurse-
4 maids of our deadly garbage and we have no right to continue to bring cancer and
5 leukemia to our children. We must strive to bring our environment again in order
6 and make for a safe and clean world with renewable and clean energy by the sun,
7 geothermal wind and water. There is plenty of heat inside the earth. We do not need
8 trillion dollar satellites that come down again and be a new danger to mankind, with
9 microwaves and what not. Power has not to come from big plants. It must be on
10 smaller scales. Every house and small community could have sun or wind power. Geo-
11 thermal should be provided in communities, like in Iceland. This all would also make
12 for jobs galore. Our technology has gone in for bigness—bigger and bigger, more
13 showy. Why? To outdo Russia? When progress hurts the people, it is not progress
14 any more.

15 These are my feelings and beliefs and I think this is what the United States
16 Constitution guarantees us, a decent world to live in.

17

18 I am enclosing some of my own letters to show where I stand.

19

They also show more of the facts

20

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Mary Benner

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Letters to the Editor

To The Editor:

We must not be fooled by the beautiful parks that Con Ed provides to make, as they say the Nuclear plants compatible with Nature. Nuclear plants in the midst of parks are not sculptures and certainly not beautiful. The parks are advertisements to sell you more nuclear plants. They do away with the facts that nuclear plants are dangerous, even more so now, since the radioactive waste has to be stored right next to the plant. That Rosalie Carter awarded Con Eds Garden at Indian Point the highest honors is also propaganda for the nuclear plants. I am sure the Gardens at Lake Mohonk with the background of Rocks and Mountains and the clear air are more aesthetic than the radioactive nuclear parks. President Carter's talks before the election made you believe that he would bring in solar energy, however, it is a different story now, the sunshine roof over the inauguration is covered now with a dark nuclear cloud, 70 more reactors.

They must not be built. They are an insult to human decency. The waste from them and from the nuclear weapons system will destroy the world, if we do not put a stop to it. 74 million gallons of high level military waste, plus additional quantities from power plants are stored at Hanford, Savannah River and Idaho Falls. Besides these there are 3,000 metric tons of commercial low level waste in storage. And not yet a solution for its disposal.

Various nuclear plants are soon on the line for decommissioning. Here too, is the question how to do and what to do with them. Most likely they will be left where they are, because they are too hot to handle, monuments of man's stupidity. If they would be dismantled, the reactor from the containment would have to be buried deep into the ground, for almost a hundred years before it would lose some of its radioactivity.

What of the risks, the workmen have to take to handle the job? There are more risks, hazards and problems, that cannot be solved with the nuclear plants. So why not admit that the whole thing is a failure and turn to safer and more economical techniques. Sure solar and geothermal techniques will cost more to build, however, they are cheaper once they are established, since there is no fuel cost, but alas not so much profit, and that is the real reason, why it takes so long to have them.

In the book: Earth, Water, Wind and Sun - Our Energy Alternatives, by D. S. Halacy, Jr., published by Harper and Row, it states: "For all its sophistication, the nuclear plant is simply a heat engine. Surprisingly, it is less efficient than old fashioned coal, oil, or gas-fired machines (and it cannot hold a candle to the Water-wheel). The best conventional powerplant is about 33 percent efficient; it wastes 62 percent of the heat content of its fuel. The nuclear plant wastes 70 percent and thus it also thermally pollutes the environment that much more."

That nuclear power is cheaper is not true. The building cost for them has galloped upwards as the fuel

cost went from 8 cents a pound to 60 cents, repairs are extremely high, the whole plant has to be shut down for it and decommissioning also has to be figured in. A plant that cost 65 million dollars to build would cost about 100 million to decommission. (The figures I am using in this article are from an article "Paying the Nuclear Piper" by Tom Wicker in the N. Y. Times, Sept. 27, 1977).

The greatest hazard will be the danger to our drinking water. Many leaks from the atomic waste have already occurred and the waste being stored alongside of the plants endangers streams and rivers and may also endanger some of the wells in the vicinity.

The by-pass of 9W also must not happen, especially they want a permit before they have a license. If the plant does not get licensed, of which there is a chance, it would be a terrible nuisance, and disruption. We must not let them step over us. Even if the plant should come here, this is not necessary. There are better ways to get power from the nuclear plants, there are plenty of alternatives, which can be built right where they are needed, in New York City. We do not need their garbage upstate in landfills, let them make electricity with it. Landfills are not sanitary. They also ruin the land.

We have to fight harder to keep PAsNY out and for that, we need everybody's support. Please support the activities of the Citizens to Preserve the Hudson Valley, Inc.

Sincerely yours,
Mary Berner
Athens

Voice Of The People

We Must Win

To the Editor:

Hunger stalks the world in many parts of the globe. Population is growing out of proportion, but more and more arable land is going to be lost. Overgrazed and overworked land is going to dust. Bad crop-years exhaust the surpluses of richer nations. In America farmland is taken over by developers for housing and shopping centers. Housing developments drive up the land taxes for farmers, and farmers that would like to hand their land on to their sons are forced to sell to the developers, because estate inheritance taxes take most every thing. So the farmland is shrinking more and more.

Atomic power plants settle on the river fronts where usually the most fertile land is found. These plants have a lifetime of about 30 to 35 years. Thereafter they have to be dismantled or left. Singh Bajwa at the NRC meeting last week admitted that no tree will ever grow on that land again. 200 to 1000 power plants are in the thought-horizons of Mr. Ford and the power concerns. Figure every 35 years acres upon acres will have to give way to radio-active powerplant cemeteries. What a waste of money, materials and most of all depletion of land. Where are these people's concern for the public and the coming generations? We do not know, how radiation behaves after the domes of the power-plants are lifted, that hold the radiation in check now, just as we do not know how far away an underground bomb blasting might be responsible for earth movement and trigger earthquakes or someday pollute the aquifer.

Must man continue with this devils play for profits sake? With conservation and a "clean energy policy" man can still save the land and the environment. Sunpower is free and clean. There is also wind and water, geothermal and other alternatives. The garbage, that also kills the land in the landfills, is used in some cities to make electricity.

The N.Y. Times of today, Feb. 20th tells of a 423 page report of a study for Ocean County, N.J.

by the NRC on nuclear complexes consisting of 20 to 40 plants in one place with clusters of cooling towers that are larger than 50 story high skyscrapers. Mile high vapor, plumes would block out the sun over the land and would rain salty mist over miles around over the landscape. Steam from the cooling towers could be seen in Wilmington, Del. and Newark and possibly from the World Trade Center in New York City.

Once through cooling would require several tunnels the size of the Lincoln Tunnel to bring the ocean water to the plants. "What about pollution of the water? Large areas would have to be deforested to make enough room for these plants, and the vacation land, the beaches and the tourist trade would be completely spoiled. What about the minimal radioactive emissions? It would not be minimal anymore from so many plants in one place. The article says this clustering would benefit taxpayers by saving construction costs and reduce the license time." It will also reduce the sunshine from the peoples lives. It says, "The plumes may disperse or rise as high as 7,000 feet above the towers, forming clouds extending as far as 50 miles downwind casting large shadows on the ground below."

People of Greene County, Beware, do not let one plant be built here, another and another will follow. Greene County is marked by them for an electrical corridor for New York State. Already they gave permission for the transmission lines. Get behind the Citizens to Preserve the Hudson Valley in its fight against the encroachment of nuclear power plants on the Hudson River. We need all your help, financial and moral support. The fight will be long and costly. We must win.

Sincerely yours
Mary Berner
Athens, NY

Feb. 23, 1976.

The Big Risk

To The Editor:

Medicine, pills, chemicals, detergents, all kinds of food-additives, food colors, and you name it, are brought on the market in our modern, technical world before they are tested to be safe for human

consumption and the ecology. When they are finally found unsafe or poisonous they are given one or two more years to stay in the market.

It is the same with atomic power plants. It is known that they are full of risk, unreliable, wasteful and costly and that there never will be a safe place on this earth to hold the enormous accumulated radioactive wastes. They try to build them and find more and more sitings with the full knowledge that uranium is in short supply. Westinghouse cannot fill its orders of 65 million pounds and has to cancel delivery contracts. The price of uranium has risen from 8 cents a pound to 40 cents. Like with the oil, the uranium rich countries may form a cartel and the price may double. Where is the promised cheap electricity?

Atomic plants are a bad gamble whichever way you look at them, and in its wake may someday be a "Prometheus Crisis" (I recommend that book to be read) much bigger than the book describes, because there will be no one left from inside the plant to tell the tale and miles around.

The plants are built without having the storage waste problem solved and the "breeder plants" are pushed and built without having the problem of the right steel alloy for the breeder reactor fuel rods. The presently used steel swells up under the 1000 times more intense radiation bombardment of neutron particles in the fuel rods of a breeder. They are searching for new alloys, but the breeder goes on the market. The problem will be solved, like the waste problem afterwards.

The U. S. Energy and Research Development Administrations largest single energy research project - the breeder - costs \$500 million a year and the total government outlays before commercialization, (according to the N. Y. Times of Feb. 1) are expected to reach \$10 billion.

Very little money is spent on the development of solar energy. This fiscal year federal spending for nuclear research is \$678 million for fossil-fuel \$253 million and for solar energy only \$25 million. Why so little? Because solar energy will not

yield the enormous profits that the nuclear does. There is no profit in mining and refining. The power from the sun is free. After solar energy is established, the price of electricity should be reasonably cheap.

Yesterday three scientists quit at the General El. Plant in San Jose. They are against the nuclear power plants because they are too risky. In the paper "Critical Mass" of the Citizen Movement to stop Nuclear Power, January, it states: The Federation of American Scientists (FAS) released the result of a poll of its 7,000 members on Dec. 8, 1975, showing that 62 percent of its respondents favor either a zero growth or a halt to new constructions of nuclear power plants. The ballot was 16 percent for rapid advance, 21 percent go slow, 38 percent moratorium and 25 percent phase out.

Arthur R. Tamplin and Bjoern O. Gillberg, Speakers at the 2nd Critical Mass Conference in 75 with Ralph Nadar at Washington, D.C. prepared "A Critical Critique" for the Government of Sweden and the head of the Department of Industry on the hazards of urban siting of nuclear power plants, which I got from Mr. Gillberg at the conference. It states in the booklet, that repairs on a nuclear reactor take more time and more workers than similar repairs on coal-fired plants. In order to avoid exceeding each worker's maximum permissible radiation exposure, a large number of men must work sequentially within a confined space to make repairs on nuclear reactor systems. For example, at Commonwealth Edison's Dresden Nuclear power station, a recent prolonged outage took 350 men to make repairs that 12 men could have done quickly on a fossil-fired plant." Further on it states: Some critiques believe that for reasons of safety alone, nuclear power plants should not be built. Others argue that it is unethical for two or three generations to consume electricity by producing radioactive wastes that present a hazard for 20,000 future generations."

Sincerely yours,
Mary Berner,
Athens

To the Editor:

I cannot see, why nuclear power plants are forced upon smaller communities; when they are too dangerous to be build near big cities. People's lives in smaller communities are worth just as much as those in the cities. Why should they take a risk, that others do not want. The risk exists, even though Dr. Dixie Lee Ray, Chairman of the Atomic Energy Commission says "There is no danger."

Seantor Baker at the ABC-TV show, "Energy Crisis" on May 31, 1973 quoted: "It is probably the biggest risk, the biggest single risk that any civilization has ever taken." Ralph E. Rapp in last Sunday's Times Magazine says, "Experienced reactor experts admit that this sequence of events could happen (major accident - China Syndrome), but contend that it's dependent on a series of highly improbable events." Many scientists say, that they are not so improbable. I think it is sheer immorality to continue, with the known facts, to site more nuclear power plants anywhere, when there are so many alternates to the problem.

It is a play with the devil. "A Faustian bargain" for the people, as Dr. Ail V. Kneese, Director of the program of studies of the Environment for Resources of the Future, Inc. of Washington D.C. calls it.

Nuclear power will soon be passe. We are on the threshold of a new era, the era of solar power. We are looking to the sun, the giver of life, not destructive death for salvation.

We will be using its beneficial rays for the heating, lighting and cooling of our homes. Already some homes in Canada, Florida and California are heated the solar way. According to an article in the Christian Science Monitor of January 15, 1974 The Massachusetts Institute of Technology built a solar heated house in 1955, operated it four years successfully, then abandoned it, because fuel was cheap and plentiful. Dr. Glazer, said, nobody wanted to bother with solar energy. Solar water heaters are already a standard market item in Australia and Israel. In Israel 2000 are installed each month. The efficient units heat water to 158 degrees in two hours of sunshine, an electric booster helps in rainy days.

UNESCO in a recent Paris meeting recommended experimentation with sunshine gathering satellites. The University of Florida lab is presently studying solar water heating, swimming pool heating, solar baking, solar distillation, refrigeration and air conditioning; solar energy concentration, solar power plants, solar cooking, solar furnace, mechanical power, closed cycle and open cycle hot air engines, solar pump, water turbine, solar gravity motor, solar thermophase shift reciprocating engine conversion to electricity, sewage treatment and solar homes. Dr. Farber stressed, that problems must be solved with local materials under local conditions. He cautions "Solar energy will not solve all our problems, but it will supply needed energy without adverse environmental effects without conserving our fossil fuel." end of quote

Solar heat is non polluting. The installation cost may be high, at first, however the operating cost will be nil, therefore in the long run it will give really cheap power. But and this is a great bit, there is no profit, or at least little profit for the big industrialists. This is also the big reason, why up to now there has not been much money allocated for research on solar energy. I believe utilities like that should be state owned.

A great push is on, to site nuclear plants. President Nixon pushes them as a salvation for the energy crisis, but they are not, because it takes 600 months to build one, that is over 8 years under favorite conditions. Exxon pushes them, because the own the big uranium mines near Casper, Wyoming and others. The land is strip mined for its uranium content. More money is in the mining and sale of uranium, than in the production of gasoline and oil. The making of enriched uranium pellets for the nuclear reactors by Exxon's Nuclear Companies plant in Richland, Wash. is big business.

Never the less, if the people insist on really clean energy, solar or other clean alternates, like geothermal, the nukes will be phased out. America has

plenty of coal. What about gasification of coal. It is clean, Paris has used garbage to make power for 50 years. This would do away with the so called "sanitary landfills" that ruin the land by destroying the topsoil.

Of course the siting of nuclear plant has to be done in a hurry, before new clean methods of energy production come to the market. The invested dollars ought

to be used to build these enormous costly plants, when we know, that the proliferation of these plants will gradually obliterate life on this earth. The constant "minimal" emission of radioactive matter from one plant in the atmosphere will be doubled and quadrupled, the way they build them now in clusters. Cooling towers, that spew 80,000 tons of water vapor daily into the air will surely have a great impact on the atmosphere, when as planned, 1,000 plants will be in existence by the year 2000. There will be sunless days, fog, humidity, greater precipitation and more ccy conditions in the winter. Cancer, Leukemia, Emphysema, sinus trouble and arthritis will be, more rampant than ever.

Is it moral to spend the tax payers money for plans that are not safe, always plagued by troubles inefficient and producing less than 50 percent of their capacity of electricity? What about the waste from these plants? There has not yet a place been found to safely dispose of this highly radioactive matter; neither the ocean floor, nor the saltines are satisfactory. In either place the steel lined cement coffers will gradually corrode. If we kill the life in the sea we will also kill mankind.

Over 160 enormous cement tanks stored full with this poison, in Hanford Wash. One half million gallons has leaked from them into the soil, according to the Los Angeles Times of July 23, 1973.

Must our little, still beautiful planet become covered with the worst man made poison, Plutonium 235, with a half life of 24360 years? Plutonium is handled by so many private companies in Hanford Wash., West Valley, N.Y., Pawling, N.Y., Morris, Ill., Erwin, Tenn., Pleasanton, Cal., Crescent, Pk., Cheswick, Pa., Leechburgh, Pa., and in Transit between these places and the power plants. It is shipped in planes, trucks and railroads, labeled: "Fissionable material." What about accidents in transport, or accidents in the places that handle it? What about cancer amongst the working people in those places? Cancer shows up five or ten years later. Of Course people are expendable and the place of work is not blamed for it.

Our nation should come to its senses and look to the sun with unlimited energy and other clean sources of energy and forget about uranium fueled plants, that are so disappointing and dangerous.

Barbara Ward and Rene Dubos in "Only one Earth" say: "It cannot said too often that we are now playing about with the primal energy of the universe. Any carelessness, any casualness, any calculus based upon inward looking national advantage and prestige or on a quick profit gained by some smartly turned commercial deal is utterly unthinkable in this context. Men are not making a simple calculus of gain or convenience. They are considering their own survival and that of their children and grandchildren and the howle race of man."

Mary Berner, r d 1, Box 46
Athens N.Y. 13015

Voice Of The People

PASNY Pushing

To the Editor:

Another year has gone by and PASNY is still pushing to locate a nuclear plant or two into the beautiful Hudson Valley. Cementon is still the prime site. However, the opposition to nuclear power plants is growing all over the world. More and more the public gets aware of the dangers inherent in these plants and the safety of them is also more questioned. Jack Anderson is correct in stating in the Catskill Daily Mail that radiation is more dangerous than is commonly believed. The nuclear industry as well as the nuclear science committees and nuclear associations, national as well as international make little of the hazards, in fact, they ignore them. In science as well as other professions, some of them see not further than their own experiment, they actually believe these plants to be safe. We see that with all the chemicals, that come on the market and later have to be withdrawn, because of hazards to the environment and the people.

Statistics show otherwise. An article in the magazine "People

and Energy" Vol. III No. 6 says: "Also government and industry exclude workers when they claim that no member of the public has been killed by nuclear power, overall health effects of nuclear power cannot be evaluated without considering workers. According to AEC figures between 1943 and 1976, 321 workers died from "all causes" and 10,086 sustained disabling injuries. However, only 3 of the deaths were due to radiation, according to AEC. But a 1970 census by the U.S. Public Health Service noted 142 workers death from radiation exposure and Leo Goodman of the Atomic Technical Committee of AFL-CIO documented 32 radiation death in the atomic industry...Of 3710 death benefit claims filed in behalf of workers at the AEC's Hanford facility, 670 of the workers had died of cancer. Leo Goodman has researched 1500 accidents which occurred between 1944 and 1967 at nuclear facilities and the AEC compiled 404 power plant emissions of radioactivity into the environment which occurred between 1969 and 1977. At Florida's Turkey Point reactor last Spring, radio-active water leaked from cooling ponds at

the rate of 90 million gallons per hour. In May 1976 Vermont Yankee released 82,000 gallons of radio-active water into the Connecticut River." End of quote. I could fill pages with examples of these kind of happenings. I am sure it does not speak for safe nuclear plants.

New York State is aited to become the high level radioactive waste depository for the world. West Valley is picked for the place. Already too much radioactive waste has seeped from that place into the ground and the drinking water of that section may one of these days become completely unfit for humans and animal consumption. New York State people must not let this yappen. Everybody should speak out against the storage depository.

Why are our leaders so shortsighted and do not look into the consequences. How can anyone not realize the hazards that the nuclear has brought into the world. It is sheer selfishness to reap profits from things, that do not profit mankind and destroy gradually the earth. Where is their conscience?

The nuclear is besides the most expensive way of solving the power problem. These plants are the most expensive to build and three times more expensive to dismantle after 30 years short use. In fact they consider not to dismantle them, they want to cloth them with mountains of cement. So we will leave radio-active monuments for future generations to look at and take another pice of land away for new plants from food production. In the end you will have nuclear cemeteries all around. How beautiful.

We spoil the looks of the country side with ugly and costly long transmission lines, which also loose a lot of electricity on the way. We could avoid these lines if we would build garbage consuming power plants in New York City; this would solve the garbage problem twofold in the city and the country. It would do away with the sanitary landfills that are often rat breeding places with foul odors and the danger of methane gas that has leaked in New Jersey and Long Island into the houses from landfills. It also would eliminate the cost of sending the garbage upstate. Methane has has also killed trees and vegetation in the neighborhood of landfills.

It has been found, that cement dust is an excellent enrichment to cattle feed, because it is full of minerals and calcium, as reported in the New York Times, Dec. 16, 1977. It can be mixed with the normal feed rations and the animals gain as much as 4 pounds a day. On a 112 day test at a Belville, Md. research center it was established that the dust fed cattle graded as average of "Top Choice Meat" the beef was more juicy than from the cattle rations alone. But alas, bring the nuclear plant to Cementon and you will have radioactive cement dust with a wonderful addition of Cesium 137, Strontium 90, Iodine 131 and Carbon 14 in your juicy beef-steak. It sure will be jucier then. A lot of the milk our children get already contains Strontium 90.

Nuclear plants must be phased out and with them a lot of cancer would also disappear. We are looking for cancer cures; let's look a little more for the causes and eliminate them.

Sincerely yours,
Mary Berner
Athens, NY

LETTERS to the EDITOR

To The Editor:

Can you picture the World of Tomorrow, when hundreds of used-out nuclear power plants, entombed in cement or moth-balled and welded in steel, line our now beautiful river fronts? Perhaps they will build playgrounds for our children outside of the forbidden zone. The inside of the containment chamber will be hot and radioactive for hundreds of years to come, and who can guarantee that cracks will not develop in the shell and the whole surrounding will be contaminated. An article by Jonathan Kandell in June 17 N. Y. Times says: "Do we have the moral right to leave these plants in place knowing that it will take hundreds, perhaps thousands of years before they cease to be dangerously radioactive?" end of quote. I say NO, we have no right to build anymore nuclear power plants, and those already in operation should be shortly phased out and replaced with newer and safer alternatives. Conservation has brought down the use of power already and with more conservation and newer methods there is no need for more.

The old fossil-fuel plants are supposed to be replaced with the so-called "cleaner" nuclear plants. If scrubbers would be enforced for the fossil fuel plants, they would give service many more years than any nuclear plant. But this would give a little less profit for the utilities.

We are the country with the most coal in the ground. We are exporting coal and importing the expensive oil. Somewhere the thinking of our policymakers is all wrong. They are working for great gains and profits of the big utilities and energy monopolies. President Carter is brainwashed by his energy secretary James Schlesinger, who is given more power by Carter to promote nuclear energy. Schlesinger, according to some press reports is having a new job besides to head an administration panel to examine solar energy; what a farce, a man who has cut the solar funding to a trifle.

The nuclear is still advertised as the cheapest and cleanest way to make energy. This is a great lie. The building cost of nuclear plants is exorbitant, the fuel cost is very high, repairs and shut downs go into the millions and the end costs of dismanteling or burying they have to be figured in, as well as the cost of monitoring and solving the waste problem. That will go into the billions.

Sun power must be the solution to the world's energy problem. However it cannot be allowed to go via the plan that "Sunsat Energy Council" has lurking in the sky. Sunsat Energy Council is a solar monopoly consisting of Government, Industry, Boeing, McDonnell-Douglas, Lockheed, Grumman, General Electric, Westinghouse, RCA, Martin Marietta Aerospace and others. They are planning to control sunpower by putting a satellite of immense proportions into space. With micro-wave beams, they will transmit solar energy to the earth. Microwaves are not yet fully understood, and they cannot be fully controlled. They can have an adverse effect on the health of the people by exposing them to their rays. The ionosphere and the stratosphere are in danger from them. Planes and birds are endangered, and television and radio interruptions will result. There is also another thing, microwave beams can be used as weapons in time of war to bombard people with. The initial cost to launch such a satellite would be from 40 to 80 billion and the complete cost might run up to one trillion dollars.

California already is taking steps to prevent large corporations from gaining a monopoly in the developing solar energy. (The foregoing information is from "Critical Mass Journal, June 1973).

Solar energy must come from smaller groups to be beneficial to mankind; it cannot be another mistake like the nuclear or we are going from the devil into the deep blue sea and monopolized utilities will reap excessive profits from the people.

A report from Washington in the N. Y. Times July 12, from the office of Science and Technology casts doubt on the long-range suitability of nearly all current proposals for storing nuclear waste underground. John M. Deutsch, the head of the panel said: "I'm not here today to tell you that a solution is at hand, or that it will be easily obtainable tomorrow." Man has run into a dead end street and further accumulations must be stopped. It must be the end of nuclear power plants as well as nuclear weapons.

People are people the world over. In any confrontation it is always the innocents that suffer and are destroyed. The Hiroshima people were innocent victims. We in America are not promoting peace by selling ammunition, we give them the means to continue war.

In today's N.Y. Times Boyce Renberger says: "Lag in world food output renews fear of famine. Africa is hard hit. Many more people in developing countries are vulnerable to a food shortage, than ever before. Figures recently issued by the Food and Agriculture Association of the U.N. estimates the number of people suffering chronic malnutrition has risen to 455 million from 400 million at the beginning of the decade."

With the money that is wasted on weapons, hunger could be wiped out in the wide, wide world.

Sincerely yours,
Mary Berner
Athens

LETTERS to the EDITOR

To the Editor:

If you think nuclear power plants are safe, then listen to what comes from a small nuclear reactor of the U.S. Navy, that has finished its life and had to be dismantled. This is taken from an article by Owen Wilkes and Robert Mann in the October issue of "The Bulletin of the Atomic Scientists". The reactor is called Nukey Poo and was built in the Antarctic at the Mc. Murdo Naval Station. The estimated cost for the reactor was \$1.4 million, however the actual cost was 3 million. It functioned badly at the beginning and had long shutdowns. During shutdowns diesel fuel had to be flown to the Antarctic at enormous costs and, the planes to bring it in used as much fuel as they carried in.

Since concrete could not be used in the subzero weather of the Antarctic, gravel had to be used as cheap substitute over the containment vessel. Gravel absorbed a lot of gamma rays and fast neutrons and over the whole period of its working slightly radio-active effluents had ran down a drainpipe into the soil. The radioactive contaminants from the effluent were being reconcentrated in the soil by the soil itself acting as an ion-exchange column. The Naval Nuclear Power Unit had promised to shift any soil that had radio-activity in excess of the standards set domestically by either the Soviet Union or the United States. This was done under the terms of the Antarctic Treaty and 8,000 tons of contaminated earth has been shipped and unloaded north of Los Angeles and is stored in a concrete pit and sealed over with asphalt. California does not want to keep it. After an almost "meitdown" Nukey Poo was dismantled and all of it has gone back to Georgia to be buried there, including 101, 53 gallon drums of radio-active soil, the "hottest" of which, wrapped in lead, contained 1.7 curies of radio-activity. Georgia does not want it. 4200 tons are still on the USNS Bland and the Navy does not know what to do with it.

The NRC after a soil sampling has calculated that 6,500 cubic yards (about 8,000 tons of contaminated earth) still have to be removed. The Navy has to dig down 15 more meters. What about the boys that have to do the jobs? Are they candidates for cancer? This all sounds like a grim fairytale but this is the folly of nuclear power. The economy of it is bad, a waste of the taxpayers money and health wise the biggest crime. We are contaminating the whole earth, without any consideration for the public and future generations.

The people of the world must awaken and put a stop to the nuclear proliferation of power plants and nuclear weapons. The indifferent people must be shaken out of their sleep and rallied behind our cause. We can not allow more plants to be built and the sale of nuclear weapons and reactors to foreign lands must also be stopped. At the "Critical Mass" Conference in Washington D.C., which I recently attended 764 delegates from all over United States, Brazil, the Philippines, West Germany and Japan rallied to fight the nuclear menace. Many scientists showed statistics of the evils of low level radiation. Dr. Helen Caldicott from the Children's Hospital Medical Center in Boston said: "There is no level low enough not to create cancer." Dr. Thomas E. Mancuso, Professor of Occupational Health, University of Pittsburgh and many other scientists spoke on radiation induced malignancies and illnesses and dangers to workers from radiation and of the awful waste that has been produced. Most scientists see no solution for this problem. Therefore nuclear power must be wiped out. The risk is too great and the contamination of the earth can not go on. It has to be replaced with conservation and saner methods. We have all the means and the knowledge to do so.

Jannine Honicker of Tennessee, a candidate for the vacant 5th District Congressional seat has filed a 152 page petition with the Nuclear Regulatory Commission calling for the end of nuclear generated power. It is a very thorough study of all the ills and effects of ionized radiation, backed by Scientists Statistics and statements from doctors and professionals and a section on the laws of people's rights under the Constitution of the United States to reject that which is harmful to our life and happiness.

I recommend that this petition be read by everybody. It can be had for a small charge through Larry Bogart, P.O. Box 619, Woodstock, NY 12498. Mrs. Honicker was also present at the Critical Mass Conference as a speaker.
Sincerely yours
Mary Berner,
Athens, NY

LETTERS to the EDITOR

Greene County News

Dec. 23, 1978

To the Editor:

In a small item titled "A costly error in power use" in the N.Y. Times of November 14th it says that the Philadelphia Electric Company wrote 10 years ago, when it estimated its future usage. In the late 1960's and early 1970s they made the mistake to assume that 1.3 million people would consume more electricity each year than before. However, in the last five years the demand for electricity stayed the same. For the slump in growth in mid 1977 they have the nerve to ask the State Public Utility Commission for a rate increase of 11.5 pct. or a total of 119 million dollars, to be used partly to pay for overestimating the use of electricity. The public has to pay for their mistake? How long will the public take these affronts?

The whole nuclear business is a "costly error." It is an error money-wise and a still greater error and insult to the health of the people.

The mining and milling of uranium into yellow cake, the enrichment and processing into fuel-pellets is very costly and these processes consume from 6,000 to 7,000 Btu input-power before they produce 1,000 btu of electricity; this is according to a net energy analysis of nuclear power for light water reactors made by the State of Oregon, the Center for Advanced Computation at the University of Illinois (Pilat and Richard) Development Sciences, Inc., and the Institute for Energy Analysis. (This is like going out in your car and using \$70.00 worth of gasoline to bring home ten dollars worth of grocery every time you shop.) The cost of removing the radioactive milltailings and the still greater mess of the lethal high and low level waste has to be figured too. There is no way of figuring these costs now since we have not yet a way of getting rid of them. All we know is, that it will be very, very capital intensive.

David Bird in the N.Y. Times of Nov. 25 says that James L. Laroca N.Y. State Energy Commissioner said the Federal Government and the State would play a major role in the clean-up of the defunct reprocessing center in West Valley near Buffalo. 90 pct. of the money would have to come from the government and the state and the commercial operator the Nuclear Fuel

Services, Inc., a subsidiary of Getty Oil Corporation would get away with only 10 pct. Of course in the end it all comes out of the taxpayers pocket. 6,000,000 gallons of highly radio-active liquid waste in underground tanks and 2 million cubic feet of radio active trash is stored in West Valley. There is trouble right now under the tanks and someday the lethal poison may appear in the drinking water.

At present spent fuel is stored in pools right next to the power plants. With the time these pools have to be emptied, where will the radio active water go to? With so much waste on hand, and no place to store more, is it not time to use our knowledge and switch to safer and better alternatives? Is it insane to continue to build more plants just as it is insane to make more nuclear weapons. Do we really know what the consequences are of proliferating radio-activity all over, or do we really not care for profits sake?

The nuclear process of making electricity was nailed as being cheap and clean, however it is just the opposite, the most expensive, least reliable and its outward clean look harbors the most dangerous effects on the health of the people, they can not always be noted right away since cancers and leukemia show up later.

According to the N.Y. Times of Dec. 4th PASNY has refused a request by N.Y. City for hydroelectric power from Niagara. The city would save as much as \$7.8 million a year in energy cost per 100 megawatts. Hydro-electric power comes to 1.2 million per 100 megawatts, compared to 5.7 million per megawatts from the Indian Point and Astoria plant.

This is an example how much cheaper other alternatives are. When the costs of decommissioning and final waste storage are being figured into the cost, it will be soaring sky high. If PASNY would be wise they would now look into other alternatives, because later they will be forced to do so. The nuclear method has to be phased out. The Sun is the way to go. In the meantime there is no need for expansion. We can conserve.

Sincerely yours,
Mary Berner,
Athens

To the Editor.

We live in a very scientific world, that can send men to the moon, put spacecrafts in orbit, create all kinds of new chemicals, search for the secrets of life in DNA; but at the same time we are more destructive and short-sighted than man has ever been. Primitive man respected nature and lived with it in harmony and peace. For millions of years the atmosphere was pure and the waters were clear and fish and wildlife was abundant. In less than 70 years of our gas and oil guzzling and chemically dominated world the air has been polluted to such an extent that it is unbearable in most larger cities. Our rivers and waterways are so bad, that fish can no longer live in them, and if they still do their flesh cannot be eaten anymore.

Our greatest insult to this planet earth was the splitting of the atom, with it we opened Pandorah's box of destruction, radiation hazards and poisons, not known before and cancers galore. There is no peaceful atom. The little good we get from it is very much out-weighted by its contaminating bi-products, radiation and the terrible waste.

It is high time that we phase out the nuclear and give other alternatives, that are beneficial, the priority. We must make an effort to conserve more and be less wasteful and careless with our natural resources. Things in nature are not infinite. Water, the greatest necessity, is coming in short supply. The water table is getting lower. Our drinking water is of questionable nature. If PASNY builds a nuclear plant on the Hudson River, the river will lose a lot of water, and if a fossil-fuel plant will come in, sure the wells will suffer. The fossil-fueled one will use ground water. When we drilled a deep well 30 years ago, we had a flow of 22 gal. per minute, after they build more places in the neighborhood, we have now a lesser flow of water.

Just about a year ago the Astoria plant #6 on the East River got in line producing $4\frac{1}{2}$ billion kilowatt hours of electricity with a fuel consumption of 7.2 million barrels of oil. Indian Point #3 is working since August '76 producing 9 billion kw hours of electricity. New York City has lost $\frac{1}{3}$ of its people and businesses have also moved out. Where is the need for more power for the City? They have no money for a new

subway. So, another power plant should not be needed. What is needed is less illumination and more conservation.

In the N. Y. Times of January 25, 1978, it says: "Dr. Carl Z. Morgan an expert on health hazards of radiation testified today (Jan. 24) that the Federal Government should reduce the amount of radiation that nuclear workers and the public are exposed to. Dr. Morgan, a professor at the School of Nuclear Engineering of the Georgia Institute of Technology, and for 29 years a senior Health Official of the Federal Government, made the recommendation at a hearing on low-level radiation by the House Subcommittee on Health and Environment. He sharply criticized Scientists who refused to accept, what he called the "preponderance of evidence" that there is no safe level radiation, and that any dose no matter how small can cause leukemia and other killing form of cancer.

The public is kept very unaware of things that go on. Hunger is still rampant in many parts of the world. In an article in "The Bulletin of the Atomic Scientists" February 1978 by Willard F. Libby and E. F. Black titled: "Feed irradiation, and unused weapon against Hunger." Scientists from the International Atomic Agency, the World Health Organization and others propose to fight hunger by checking the loss of grain by rats and insects with irradiation of the grain, potatoes, fruit and also meat with gamma rays, that are produced by an irradiator. This may either be a radioisotope (a radioactive element such as cobalt 60 or cesium 137) or an electron accelerator. This radiation will kill micro-organism, all insects, insect eggs and fungi. It will also inhibit the natural sprouting of any type of bulb vegetable, potatoes, onion, etc. In other words it makes all the food sterile. It will surely kill all the vitamins. If you kill the germ in the wheat and other grains, what have you left? A dead matter devoid of nourishment. They say it is harmless, which I doubt, and it has been tried on the Astronauts on the 1972 Apollo 17 Flight. The Atomic Energy Committee emphasized that the ionization of food has been more thoroughly tested than any other method of food preservation. Stilbestrol used on chickens and meat for years had also been thoroughly tested and recently had to be forbidden, because it was carcinogenic and harmful to humans. Many food additives had been thrown on the market supposedly safe and after damage had

to be withdrawn.

The DDT and other pesticides disturbed the balance in nature by killing the good insects with the bad ones, in fact some of the bad ones were more resistant to the poisons and grew larger. Man brings on his own troubles. I am sure we cannot feed a hungry world with sterilized, demuded food. Of course, the chemical industry will pump artificial vitamins back into the dead food. It is the chemical industry and the nuclear that dominate our lives. I prefer things as nature intended them to be and grow my own in my garden. But, I feel the Public should have a say in matters pertaining to their health.

Sincerely yours,

[Handwritten signature]

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