GAINSAYER

Newsletter for GANE — Georgians Against Nuclear Energy

Fall/Winter 1992/1993

THE WORLD URANIUM HEARING

SALZBURG, AUSTRIA – SEPTEMBER 13-19, 1992

We gathered late in the afternoon in the beautiful city of Salzburg, Austria, home of both Mozart and the von Trapp family of "Sound of Music" fame. In this exquisite landscape, over 300 people from all parts of the world prayed together high above the city for the earth and humankind. A fire was lit and prayers for world peace were made by participants during the opening ceremonies. All week long, day and night, volunteers tended the fire on the hill while they prayed and meditated. Most major denominations were represented including Native Americans, Buddhist and Tibetan monks, Catholic priests, Protestants, Jews, Moslems and others who wanted to pray aloud.

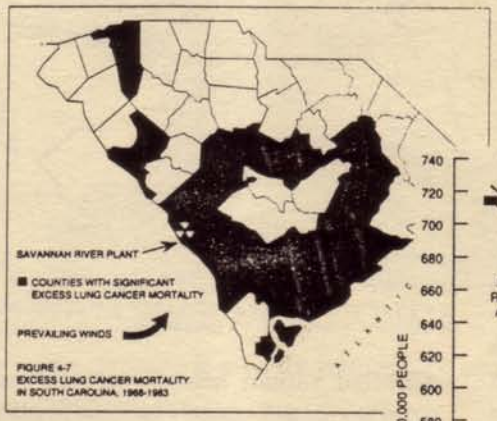

FIGURE 4-7
EXCESS LUNG CANCER MORTALITY IN SOUTH CAROLINA, 1968-1983

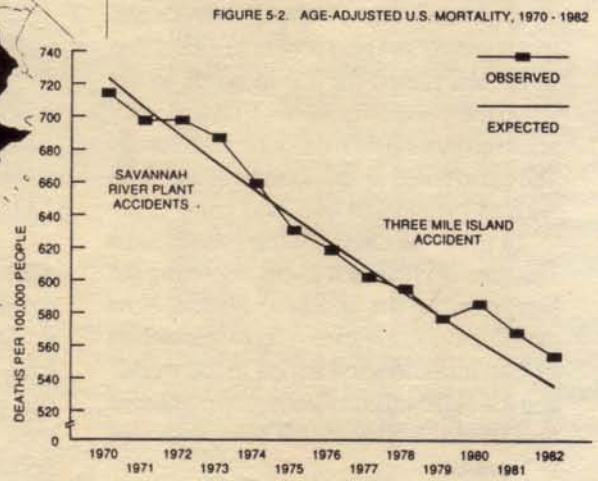

FIGURE 5-2. AGE-ADJUSTED U.S. MORTALITY, 1970 - 1982

Prince Alfred von Liechenstein, 1990 recipient of the Albert Schweitzer Humanitarian Award and the Governor of the State and the City of Salzburg, Austria sponsored this profound gathering, which was five years in the planning. *Austria is a nuclear-free nation.*

The World Uranium Hearing was entitled "For the Sake of Our Children, for the Future of Humankind, for the Future of All Life on the Earth." It was called so that the world might hear from the earth's native people who have suffered most cruelly from the effects of negligent mining, testing and storage of the deadly nuclear chain.

The hearing was called to warn the world of the dangerous risk to life on earth when uranium is continued to be mined and transported to other nations for power plants as well as for making weapons, the next logical step in the process once a nation has the power.

Of the over 300 attendants, 200 were invited to be Listeners. On the Board of Listeners were the Council of Scientists and the Council of Jurists who represented medicine, biology, physics, chemistry, geology, geography, ethnology, religion and international law.

The Witnesses and Victims came forward over a five-day period, hour after hour, relating their stories of the "injustice which so badly disfigures the whole of Western civilization" (Claus Biegert, conference initiator). They traveled from the United States (South Dakota, Oklahoma, Nevada, Georgia, and New Mexico), Peru, the Philippines, Tibet, Hiroshima (Japan), Brazil, Chernobyl (the Ukraine), Mongolia, India, Malaysia, Poland, Nigeria, Bikini, Australia, Siberia, Canada, Marshall Islands, North Pole, Micronesia and East Germany.

I have worked for years to end the build-up of nuclear weapons and testing, and even I was naively blind to the destruction resulting from uranium mining. Did you know that for every ton of uranium taken from the ground and milled, another 1,000 to 40,000 tons of radioactive waste is left in the air and the water, including our lakes, rivers, oceans and ultimately, the ground and then the food chain?

We sat like a jury and listened and with each successive recounting our hearts and minds were stretched to new levels of compassion, knowledge and commitment. We began to better understand the deadly nuclear fuel cycle. About 75% of the testimonies came from indigenous people, beautiful, respectful caretakers of earth who have lived in harmony with nature for thousands of years. Although their individual stories were different, their gripping pathos was simplified into a pattern of abuse.

The mining companies operate under a cloak of secrecy. They offer jobs without any warning of health risk. With sickness and death of individuals comes cover ups, denials and lies. The stories we heard included testimony that the Eskimo's meat source, reindeer meat, was contaminated

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WORLD URANIUM HEARING

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by eating radioactive lichen; children in the south Pacific islands ate contaminated fish and are dying from leukemia. There were reports of unusual cancers and rates of cancer, miscarriages, birth defects and retardation and death.

The tragedy of the accident at the Chernobyl energy plant was magnified by irresponsible government actions. Several sources testified that in order to cover up and deny to the world the seriousness of the event, only four days after the explosion, the government held planned festivals and sports games and paid people to attend that were then filmed for TV to prove to the world there was no problem. Children were involved by sending them out to rake leaves. They also raked up the dead birds and field mice and wondered what was going on.

In 1951, the United States established a Test Site in Nevada without informing the legal owners, the Shoshone Nation. Now these Native Americans refer to themselves as "the most bombed nation in the world" and it is believed that the greatest number of nuclear tests worldwide has been conducted in Nevada.

The jury began to better understand the consequences of the deadly nuclear fuel cycle. The critical end results are the power plants and the bombs. Here the civilian and the military are so interdependent that it is impossible to separate them, said Miles Goldstick, a Swedish scientist. In a Sojourners Magazine from 1977, Helen Caldicott supports Mr. Goldstick and said, "Every country that buys a nuclear power plant can make atomic bombs, that's why nuclear weapons and nuclear power are synonymous." So, you can think of the countries that now have that capability — Iran, Iraq, South Africa, Brazil, Korea, India, Pakistan are only a few. They also have the capability of nuclear bombs.

Equally dangerous to the world population and less well-known is the transportation of these explosive materials over long distances between nuclear facilities. For example, Canada, France, The Netherlands, the U.K., the U.S.A., and the U.S.S.R. all delivered various amounts of uranium hexafluoride to Sweden's fabrication plant in 1987. These came by ship, but once on land, many parts then travel by truck, air, and rail through populated areas to reach their eventual destination. Japan's transportation of plutonium (spent reactor fuel rods) to France for reprocessing into weapons-grade plutonium fuel is now alerting the world to these facts. The risks are unacceptable to the safety of our society!

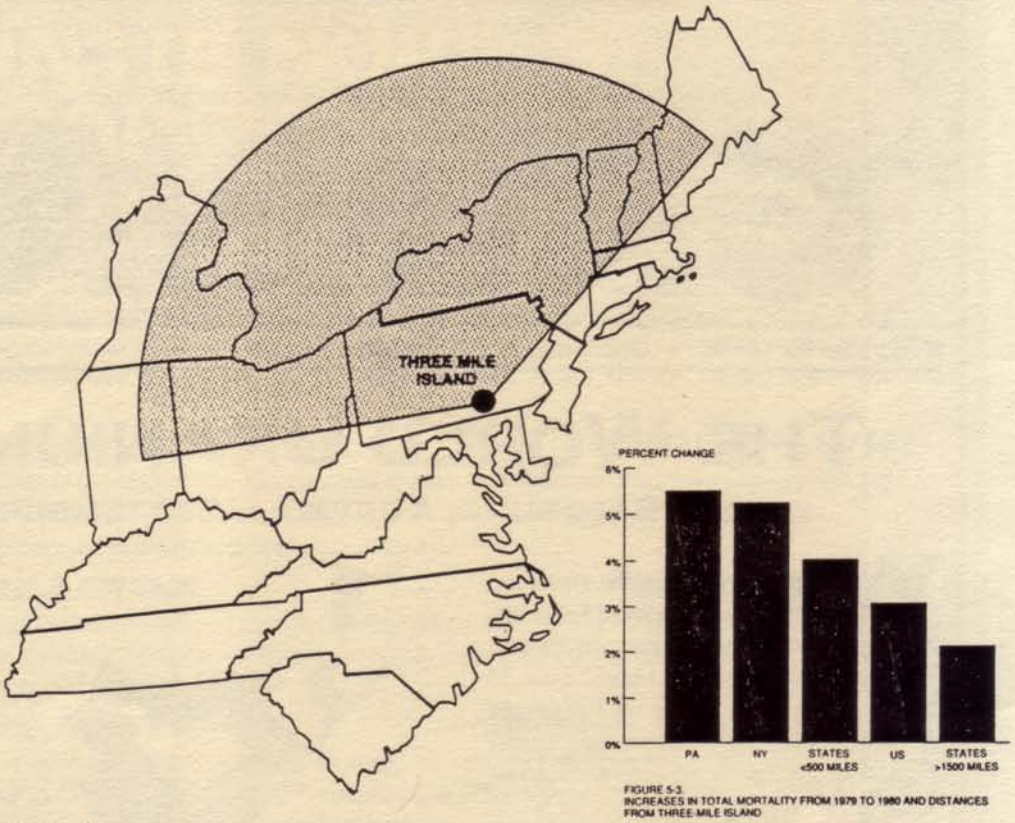

FIGURE 5-1.
STATES WITHIN FIVE HUNDRED MILES OF THREE MILE ISLAND AND GENERAL DIRECTION OF RADIOACTIVE EMISSIONS

FIGURE 5-3.
INCREASES IN TOTAL MORTALITY FROM 1979 TO 1980 AND DISTANCES FROM THREE MILE ISLAND

We can look at the accident at Three Mile Island in 1979. Its effect forced the proponents of nuclear energy to reexamine safety.

The reactor at Chernobyl blew up in 1986 and spilled its contents into the atmosphere contaminating half of the earth. As of 1991 there have been 1,924 known nuclear tests, 400 in the atmosphere. As a result, everyone on earth now has strontium-90 in their body tissues, said Dr. Jim Falk, a conference participant. (Strontium constitutes a radiation hazard in fallout.) Dr. Bertell estimates that the waste generated in tests causes 20 to 40 deaths per day worldwide.

It is laughable to discuss the storage of the nuclear waste as you know there is no place to put it, which is why fish and other animals are contaminated as their living space is usurped for clandestine dumping. The U.S. government promised in 1951 to safely store these wastes and still can't find a place or a way to do so.

In an address from Ramsey Clark, keynote lecturer and former attorney general and an international lawyer, he said, "Uranium/nuclear is the greatest danger of all time."

"We must enlist in the struggle and never stop," said Dr. Joanna Macy, scientist and workshop leader. "We have to break the silence . . . refute the lies, these crimes against humanity."

The conference ended as we traveled to the highest point in the Austrian Alps. There were formal prayers, the reading of the resolution and the formal presentation to the Alpine Guide who was able to hike the last 1,000 feet of the 10,000-foot mountain to hurry our message to the world. As the participants turned to depart the mountain we looked back one more time to see majestic eagles soaring over the summit as if sent to help carry the message that "all phases of the nuclear chain are destructive and a threat to all people and the environment."

— Ruth Boozer

Off-the-Grid in South DeKalb

Georgia Power's Most Wanted

Our house, which is owner-designed and built, is "off the grid." We are currently connected to only two utilities, water and telephone. The project has evolved over a time span of several years and is still evolving. The reasons and events that brought about this unusual circumstance are many, and would be long in the telling. Therefore only the basics will be presented with no long-winded rambling or philosophizing allowed.

To begin with, I'm a civil engineer. Though not a prerequisite for this project, my education and experience, particularly in construction, gave me a definite leg up for this venture which was to consume me and my family for several years. It's not finished yet. Though very livable, there still remains much work to be done.

The house we built is a two-story timber frame with several solar features. I like to call it neocolonial since some of the details used in the construction are hundreds of years old, while others are very modern and high-tech.

The passive solar features include a greenhouse across the entire southface. Between the house and greenhouse stands a 16-inch Trombe wall built out of reinforced concrete. A Trombe wall is basically a heat storage wall for solar energy. The second floor has several large, southfacing windows. Across the entire peak of the roof is a southfacing clerestory (a continuous row of windows). All southfacing windows have overhangs designed to block solar gain during the warm months. Figure 1 will give you an idea of the configuration.

The house is well insulated and utilizes a centrally located wood stove for back-up/primary heating. We probably burn two to three cords of wood a season, though an accurate measurement has never been made. Most of our wood is obtained on our own woodlot.

The house power system is called a hybrid system in some references, meaning that more than one source of power is available. In our case, we are using photovoltaic solar panels and a gasoline generator. Propane is used for refrigeration and cooking.

OFF THE GRID: Bruce Henry

The heart of the system is the battery bank which consists of 20 6-volt golf cart batteries wired in banks of four to produce 24 volts. The house is wired for both 120-volt AC like a conventional house and 24-volt DC (direct current—the form of electricity generated by solar cells). The DC currents are used primarily for lighting. The majority of lights are 24-volt fluorescents requiring only 15 watts each. The 120-volt AC is provided either by a 3500-watt inverter or a 4500-watt generator.

The photovoltaic solar panels are roof mounted. They produce about 2 amps apiece with an open circuit voltage of about 36. The four panels were owner-built using a somewhat experimental design. Each panel consists of 72 photovoltaic cells wired in series with four rows per panel. Integral with each fin is a concentrator called a Winston trough.

High temperatures developed by the concentrators require that cells be cooled. In our system, we circulate water through the panels via the cooling fins from two 65-gallon solar water tanks in the greenhouse. Of course, an important by-product of this is hot water for the house.

Failure to cool the cells in the summer will result in total stoppage of cell output, and could possibly do some damage. Solar cells have an optimum operating temperature. I don't believe you can get them too cold, but performance will degrade as they get hotter. Luckily, they perform well at hot water temperatures.

The performance of the system has been mixed. The passive solar features work remarkably well, though they are far from being optimized. The house is warm and bright during the winter months. Even though it is not air-conditioned, the downstairs rarely exceeds temperatures in the low '80s on the hottest summer days. At night, natural convection produced by the clerestory creates a breeze through windows on even still nights. By early morning the house will have cooled to the outdoor temperature which is usually very comfortable for sleeping.

The clerestory is probably my favorite feature. A nice side benefit of this detail is excellent access to the roof and PV panels. It also made the roof much easier to construct.

The solar electric panels have been somewhat disappointing. The maximum panel output has never been more than 2 amps, much less than the 4 amps hoped for. I theorize that inadequate cell cooling is the culprit. We produce adequate hot water about seven or eight months of the year. During the summer we produce much more than can be consumed. During the winter, we produce tepid water at best.

Actually the performance of the hot water system has been about what was expected. We have a back-up system on our to-do list which will probably use the wood stove or point-of-use demand heaters. Until then, we heat small quantities of water on the wood or cook stoves and use another conventional house we own nearby for bathing during the winter. We also do all our laundry there.

The PV panels have required considerable maintenance due to freezing problems

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Off the Grid in DeKalb
Georgia Power's Most Wanted

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and cracked cells. This has resulted in considerable downtime of panels with consequent increased use of our generator. Oddly enough, one panel has required no maintenance and continues to produce power with no noticeable degradation. If I had it to do over again, I would probably build or buy conventional panels, and build a separate solar water system.

As we began this grand experiment with less than half the photovoltaic output we needed, we have had to depend a great deal on our generator. I would like to add more panels as I can afford them. Despite Reaganomics, prices for PV panels have continued to fall, and I've seen several good buys on used and surplus panels.

The future of solar energy systems and other renewables is hopeful. Already, it's cheaper in some remote parts of the country to install a PV system rather than tie to a central utility. Our current energy policy is foolish at best and disastrous at worst. Carter's energy policy was for the most part visionary, and would have put us in a much more tenable position if it had not been dismantled. It can only be hoped that Clinton and Gore will emerge with the leadership change our direction which is steering us towards potentially unprecedented disaster if our appetite for non-renewables is not curbed.

I know I promised not to philosophize, but I lied! Ya'll come see us!

—Bruce Henry

Bruce Henry is a professional engineer working with the EPA in the water division. Bruce is available to consult for your off-the-grid problems and can be reached at 404-808-7071. Bruce is right, our country is headed for disaster with current energy policy. Please let your congressman or senator have your input. Now is the time!

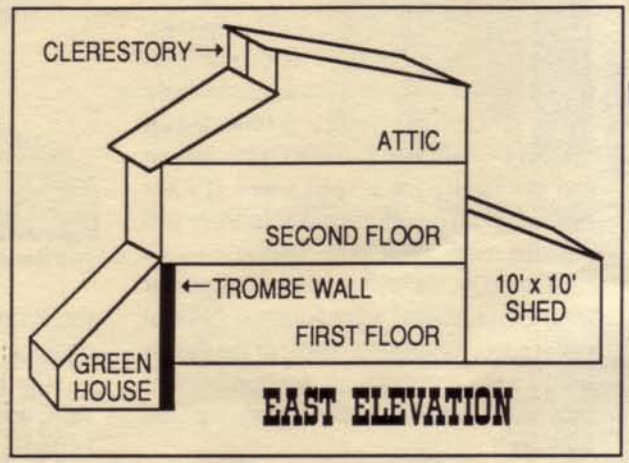

Figure 1

Energy Facts

Current energy savings per year from energy-efficiency improvements
$150 billion

% of Energy Department budget directed towards nuclear weapons in 1980
19%

% of Energy Department budget directed towards nuclear weapons in 1990
59%

Reduction of federal funding for renewable energy between 1981 and 1989
90%

% of US energy needs provided by nuclear power
4.8%

% of US energy provided by renewable energy
5.7%

% of US energy needs the Department of Energy estimated could be met with renewables
75%

% of Americans opposed to nuclear power
60%

Ratio of Americans preferring renewable energy and efficiency over fossil fuel
6 to 1

FALL/WINTER 1992/1993 GAINSAYER

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NUKE NOTES

6/2/92: DENVER: A federal judge closed the book on a massive environmental investigation at the Rocky Flats nuclear weapons plant near Denver by accepting an $18.5 million fine against Rockwell International Corp.

6/6/92: SIBERIA: A Norwegian environmental group claims that the top-secret dumping of radioactive waste in reservoirs near the former Soviet Union's first plutonium plant constitutes a nuclear radiation disaster far worse than Chernobyl. Oslo-based group Bellona estimates that perhaps 50,000 people have died from radiation poisoning since 1948 in the area around the Mayak plant in Siberia.

6/6/92: TENNESSEE: Radioactive Car Sold in Oak Ridge. Oak Ridge National Laboratory officials acquired a 1992 Mercury Tracer they hadn't planned to buy. The reason? The low rental car had gotten stuck in radioactive mud. Officials were concerned about possible liability if the car was returned to the rental agency, so they paid $11,000 to add it to the government's fleet. Lab officials weren't sure all the contamination could be removed.

6/13/92: NEW YORK: Dismantling of Nuclear Plant Approved: The NRC has approved plans to dismantle the %5.3 billion Shoreham nuclear power plant on Long Island, the most expensive nuclear plant never to generate electricity commercially. The power plant, 50 miles east of New York City, has never operated above a 5 percent testing level. The order opens the way for Shoreham to become the first commercial U.S. nuclear power plant to ever be converted to another use.

6/16/92: Company to Produce Own Radioisotope: Atlanta-based Theragenics Corp. said it has earmarked $3 million for a cyclotron to produce palladium- 103, a radioisotope used in the company's cancer implant.

6/24/92: NORTH CAROLINA: Nuclear Waste: The Supreme Court struck down a key part of the 1985 federal law designed to force states to find disposal sites for level radioactive waste. The court ruled that he law's ultimate threat — forcing states to take possession of the waste if they fail to come up with another solution by 1996 — violated states' rights.

Georgia and other Southeastern states have formed a compact to handle waste for the region. The compact already is working on which state will house the next site, probably after 2016 when the North Carolina facility reaches capacity. Mr. Setser said Georgia probably won't host a low-level nuclear waste site for several more decades. Local citizen opposition has delayed development of the North Carolina facility for nearly three years.

6/24/92: NEVADA: Nuke Test: A nuclear device 1.5 times more powerful than the bomb dropped on Hiroshima was detonated under Yucca Flat,80 miles from Las Vegas, the Energy Department said. It was the second U.S. nuclear weapons test in five days and it went off without a hitch, said spokesman Jim Boyer. (Yeah, but did it trigger the 7.5 magnitude quake that killed the little boy in Yucca Flats? The two tests were on 6/19 and 6/23.)

6/28/92: WASHINGTON, D.C.: Plans for Safer Reactor Unveiled: Beginning what government and industry officials hope will be a new era in nuclear power, the Westinghouse Electric Corp, formally submitted to the NRC an analysis of a new "simplified" nuclear reactor that the company says will be 300 times safer than current regulations require. The design is for a smaller, more flexible plant with far less safety equipment. Westinghouse claims it would not require human operators to take prompt action in an emergency, because it would use forces such as gravity and natural heat flow in cooling systems instead of pumps and valves. They also say the plant would take half as long to build as recently built plants, at barely one-fourth of the cost per unit of generating capacity. The design is supposed to form the basis for a standardized plant that utilities around the country could use.

Without orders for new plant, the nuclear industry will continue down the path to extinction. The industry has had no orders for new plants since 1978.

7/3/92: NORTH CAROLINA: Bad Reactor List: The NRC dropped the Browns Ferry, Unit 2 reactor in Alabama from its list of worst-run nuclear power plants but added two reactors in North Carolina, Brunswick Units 1 and 2 in Southport. The actions came at the commission's semiannual review of nuclear plant performance and safety. Placement on the list means the NRC will monitor plant operations more closely.

7/4/92: DOWN AND DIRTY: Trap for Atomic Waste: Researchers at Pennsylvania State University say they have developed a fine-grained powder that traps strontium-90 and has the potential to purge contaminated waste water of the lethal radioactive element. Strontium-90 displaces calcium in human bone marrow and can cripple production of red blood cells . It is contained in the fall -out from nuclear bombs and in the waste generated by nuclear plants, and was one of the radioactive chemicals that spewed out of the Soviet nuclear power station at Chernobyl in 1986. The Pennsylvania researchers, who reported their findings in Nature, have found that strontium-90, when mixed with a clay powder called sodium-4 mica at room temperature, gradually squeezes its ions in between the molecular layers of the clay.

7/5/92: NEBRASKA: Alerts Shut Down Two Nuclear Plants: Thousands of gallons of radioactive reactor coolant spilled onto the containment building floor of a Nebraska nuclear power plant, while a transformer exploded near a Pennsylvania reactor. Both plants shut down and alerts were declared. Utility officials said there was no danger to the public or workers and no release of radiation from either incident. In

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NUKE NOTES

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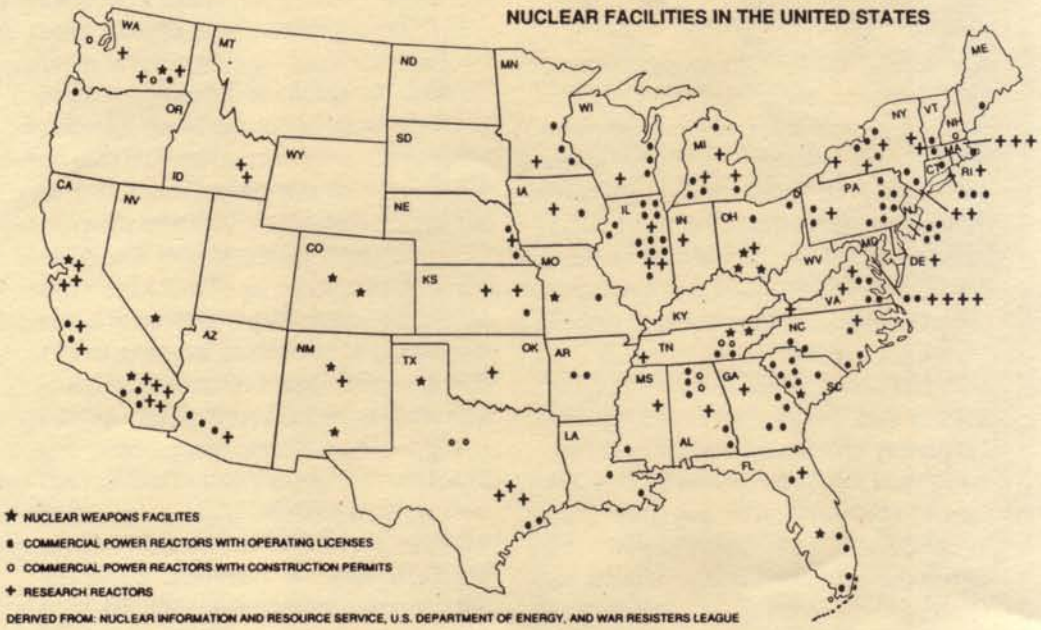
Nebraska, an alert was declared at the Omaha Public Power District's Fort Calhoun Station at 11 :55 p.m. Friday and ended at 6:30 a.m. Saturday. In Delta, PA, about 70 miles southwest of Philadelphia, Unit 3 at the Peach Bottom Nuclear Power Plant shut down automatically after a transformer exploded at an electrical substation. That plant was on alert for four hours Saturday morning.

7/5/92: Q. *A few days after an underground nuclear test in the Nevada desert, there were earthquakes in California. Has there ever been a study showing a connection between the two? Donna Drake, McDonough*

A. Call it a coincidence if you like (and that is what the vast majority of scientists and geologists do call it), but according to research done by Dr. Gary T. Whiteford, patterns over the last 40 years indicate that underground nuclear bomb explosions hold a key to predicting large earthquakes. A University of New Brunswick geography professor in Canada supports his findings with maps and close to 100 years of statistics. He notes that out of 32 killer quakes since 1953, 20 of them can be tied to within days to a nuclear test. Of course, up until a few years ago there was at least one nuclear test a week. He also notes that the first half of this century witnessed about 68 quakes a year that reached a magnitude of 6 or higher on the Richter scale, and since 1950 when nuclear testing began, the average has nearly doubled to 127 a year.

7/7/92: CALIFORNIA: Nuclear Waste Was Dumped in Open Pit: Excavations at a Rockwell International laboratory in Simi Valley confirm that low-level radioactive waste from nuclear reactors was simply tossed into an open pit decades ago, federal and company officials said. The nuclear byproducts cesium and strontium were found throughout 400 square feet of a former burn pit at the Santa Susana lab, said Jerry Gaylor, an official at the company's Rocketdyne division. The radioactive materials in the soil is not an immediate health threat but must be removed to prevent it from spreading, officials said. Simi Valley, once a rural area northwest of Los Angeles, is now a growing suburb.

7/8/92: RADIATION CARE: Shares of Atlanta-based Radiation Care Inc.—which traded as high as $16.75 in the past year—plunged to $6.62 after it was disclosed last month that Radiation Care and Alpharetta-based T2 Medical Inc. were asked to provide documents for a federal grand jury investigation. T2 Medical also slid on news of the grand jury.



7/19/92: WASHINGTON, D.C.: Radiation, Health Studied: In the early days of the Savannah River Plant, radioactive releases were considered routine. Now, the Energy Department considers them mistakes, and is beginning to study the effect of such spills on people's health. A department report on SRP releases of radioactive tritium into the air found that in the 1950s, workers deliberately released the gas, saying it didn't pose any threat, the Augusta Chronicle reported. The report showed that in 1958, SRP released a record 2.36 million curies of tritium into the air—about five times more than the atmospheric releases in recent years. Now, the Energy Department is trying to determine what effect, if any, its earlier position on tritium releases had on the health of people living near SRP, in Aiken, S.C., near the Georgia border.

7/19/92: OREGON: College Can Restart Reactor: A federal agency gave Reed College of Portland permission to begin using its nuclear reactor again, even though the school couldn't find a leak that forced the reactor to be shut down in November. The washing machine-size reactor is used in educational programs, not to generate power. Licensed student operators shut it after monitors detected radioactivity leaking from the machine. Officials thought the leak was caused by a microscopic hole in a fuel rod. But they couldn't get the reactor to leak again, despite restarting it and running it at full power.

7/24/92: WESTINGHOUSE: Westinghouse Electric Corp., Pittsburgh, signed a $100 million contract with Southern Nuclear Operating Co. to supply six replacement steam generators for Alabama Power Co.'s Birmingham, AL Farley Nuclear Power Plant, units 1 and 2. *[New York Times]*

8/8/92: Radioactive Fires: Forest fires in Belarus are releasing into the atmosphere huge amounts of radioactive material that may have come from the 1986 Chernobyl nuclear disaster. The fires have been burning for weeks during a summer drought. ITAR-TASS said research institutes in Gomel observed a sharp increase in local radioactivity levels. Belarus forests were dusted with cesium and strontium when the reactor in neighboring Ukraine exploded. Many in Belarus have complained of feeling ill recently.

8/11/92: Munching Uranium: Scientists have found a bacterium that draws uranium into its body from it surroundings, then converts the uranium into a salt that is stored as a crystalline solid in the bacterium's outer membrane.

Uranium, which is used extensively in electric-power generation and the manufacturing of nuclear weapons, is highly toxic and radioactive. These bacteria might be used someday to clean water contami-

nated by uranium. *[New York Times]*

8/23/92: South Carolina: Nuclear Plant Shut Down: The H.B. Robinson Nuclear Plant in Hartsville has been shut down because of a broken transformer, but a spokeswoman says there is no danger and that customers will continue to receive power. Customers were being supplied from other plants in the Carolina Power & Light system, which serves nearly 1 million customers in South Carolina and North Carolina, CP&L spokeswoman Elizabeth Bean said. "There is no problem at the plant from an operational standpoint other than that we have lost power," she said.

9/20/92: Michigan: Nuclear Plant Closes After Worker Dies: A worker performing tests at the Palisades Nuclear Plant was electrocuted, prompted officials to shut down the plant while the accident was investigated. Phillip Van Zandt, 41, a senior laboratory technician for Consumers Power Co., was testing a meter that measures the plant's electrical output when he was electrocuted. The accident occurred in an area that monitors the plant's steam generators and did not involve the plant's nuclear reactor.

10/1/92: Incident at Tokyo Reactor: A mistaken flip of a switch at a nuclear power plant caused a reactor's cooling pumps to fail, a Government official said, but an emergency system prevented a possible meltdown. The incident occurred at a plant owned by the Tokyo Electric Power Company in Fukushima prefecture, 70 miles northeast of Tokyo. The emergency system is the last reliable defense against a core meltdown, in which the reactor's fuel rods melt and form a puddle that can release radioactivity. *[New York Times]*

10/16/92: Leak of Radioactive Steam Closes Lithuania's A-Plant: A radioactive steam leak forced Lithuania's only nuclear power plant to shut down October 15, but the nation's nuclear agency said no radiation had escaped.

The steam leaked inside a reactor building at Ignalina, but testing did not indicate a rise in the radiation level outside the Chernobyl-style plant, Povilas Vaisnis, the head of the Inspectorate on Nuclear Power Engineering Safety, told the Itar-Tass news agency. The No. 2 reactor was shut down about noon and repairs could take a week. The No. 1 reactor was closed for repairs after a gas leak several months ago.

The 10-year-old plant, 50 miles northeast of Vilnius, provides 60 percent of Lithuania's energy needs. The reactors can produce 2,500 megawatts but have been operating below full power since a reactor exploded at Chernobyl, Ukraine, in 1986. *[New York Times]*

10/20/92: Yeltsin Extends Russian Ban on Nuclear Tests to July '93: President Boris N. Yeltsin today extended Russia's nuclear test ban until July 1993 and urged Britain and China to join the moratorium as a step toward halting atomic blasts "completely and forever."

Britain said it would continue detonating nuclear weapons at a test site in Nevada. *[GANE Note: You're reading that right — Nevada.]* Chinese officials did not immediately respond to Mr. Yeltsin's call.

The Russian President signed the decree to reciprocate for cuts in testing announced by the United States and France. President Bush signed a law this month banning nuclear tests for nine months, also until July 1993. *[New York Times]*

11/92: Hello and Goodbye: How do you erect a Keep Out sign that will last 10,000 years? The Department of Energy will have to answer that question if it goes ahead with plans to build the world's largest permanent nuclear-waste repository 2,000 feet beneath the New Mexico desert — a cache so toxic that all humans will have to be warned away from the area for 10 millennia. A panel of linguists, geologists and artists convened by the DOE has come up with several preliminary notions. Few utilize English, since nobody knows whether it will be spoken in 11,992 A.D.; instead the panelists are thinking visually. One envisions a forest of 80-foot-high basalt spikes pointing forbiddingly in all directions: another suggest a huge earthwork in the shape of the atomic trefoil graphic familiar from bomb shelters. The most eloquent however, may be a huge image of a human face, hands held to head, in the style of Edvard Munch's ***The Scream***. *[LIFE]*

12/2/92: OKLAHOMA: Cleanup May Take 12 Years: The cleanup of radioactive and toxic wastes at a soon-to-be-closed uranium processing plant in Oklahoma may take as long as a dozen years, operators of the plant said. Executives of Sequoyah Fuels Corp., in a briefing for staff of the Nuclear Regulatory Commission in Rockville, MD, also raised the possibility that some radioactive materials, primarily contaminated soil, may remain permanently buried on the site near Gore, 60 miles southeast of Tulsa. Sequoyah announced in late November 1992 that it was closing the facility, which repeatedly has been cited by the government for environmental and safety violations.

12/5/92: CONTAMINATION: Scientists have detected the element americium near the ruined Chernobyl nuclear power reactor, leading to fears of future "unbelievable high" radiation levels in the decades to come, according to a Ukrainian lawmaker.

Volodymyr Usatenko, chairman of a Ukrainian parliament panel on nuclear energy, fears that "in 50 or 70 years, radioactivity levels from disintegrating americium could reach 6 million curies." Usatenko believes that if the recently detected americium is confined to a small area, it will create an absolute dead zone for generations.

12/5/92: Former GE Worker Awarded $13.4 Million: A former employee of General Electric Co. was awarded $13.4 million by a federal judge for bringing forward evidence that the company defrauded the United States in a scandal involving the sale of military jet engines to Israel.

12/8/92: Low-Level Radiation Called Health Risk: New York: The first independent study of the health records of 35,000 workers at a government bomb plant in Washington state presents a new, more sinister picture of the risks of small doses of radiation.

This finding, by a pioneer in radiation epidemiology, Dr. Alice Stewart, follows her 14-year struggle to regain access to the health data. Dr. Stewart's study, financed with $1.4 million from the Three Mile Island Public Health Fund, concludes that 200 of the workers have lost or will lose years of their lives because of radiation-induced cancer.

(Unless otherwise noted, all Nuke Notes are from Atlanta Journal/Constitution.)

Thousands of Workers at DOE Weapons Facilities Are Aided

New Protections for Nuclear Whistleblowers

10/29/92: Washington In a major reversal of several Reagan/Bush-era judicial decisions, Congress has passed new whistleblower legislation greatly enhancing the protections offered private sector employees who blow the whistle on nuclear hazards. These new protections for employees are part of the Comprehensive National Energy Policy Act, a newly enacted law.

For the first time, thousands of workers at U.S. Department of Energy (DOE) nuclear weapons facilities, such as the Savannah River Site in South Carolina, Rocky Flats in Colorado, the Oak Ridge nuclear site in Tennessee and the Hanford nuclear facility in Washington, are protected from retaliation or termination for blowing the whistle on nuclear safety problems.

The new whistleblower law not only expands federal protection for employees who work at DOE nuclear weapons facilities, but also closes a number of loopholes in the old nuclear whistleblower law which only protected employees at NRC-regulated commercial nuclear facilities. For example, the new law has enlarged the statute of limitations from 30 days to 180 days, requires employers to notify their employees about the right to blow the whistle, provides for expediting meritorious claims and allows states to pass even stronger legislation protecting nuclear whistleblowers.

Under the Act whistleblowers will have 180 days from the time of the alleged harassment, termination or other form of discrimination in which to file a complaint with the U.S. Department of Labor, Wage and Hour Division.

"Retaliation against whistleblowers has run rampant at DOE plants in recent years," says Stephen M. Kohn an attorney with the National Whistleblower Center and author of *The Whistleblower Litigation Handbook: Environmental, Health and Safety Claims* (1990).

"The DOE nuclear plants have had the worst safety records yet, until now, employees who raised concerns have been the victims of severe harassment and intimidation and were without legal redress under federal law," Kohn said.

"This is a significant improvement in whistleblower protection law," says Kohn. "Congress has fixed several major flaws in the federal nuclear whistleblower act, most notably, by expanding the scope of protection to cover employees at DOE nuclear facilities and by increasing the statute of limitations," he added.

The National Whistleblower Center was created in 1988 in response to the need to protect whistleblowers who could not find representation from existing public interest organizations and attorneys. The Center supports precedent setting litigation on behalf of employee whistleblowers, provides legal advice and referrals for counsel to whistleblowers nationwide, and educates the public about the rights of employees to make disclosures regarding corporate or government misconduct, environmental protection or health and safety violations.

Stephen M. Kohn is part of the legal team which represents Georgia Power whistleblower Allen Mosbaugh whose charges of willful unsafe misconduct by Georgia Power at Nuclear Plant Vogtle are still being investigated by a grand jury.

HALLOWEEN PARTY

Halloween came hot and inspired and if you missed the party co-hosted by John Rick, Patti Kunkle, Woody Jones and GANE at Wood Logic on DeKalb Avenue, you deprived yourself of the party of the year. Music by The League of Decency and dancing et al was matched only by the creative genius in the diversity of costumes. John's favorite was the Ever Ready Battery Bunny and Patti was partial to Frankenstein. I personally couldn't take my eyes off of all the men dressed as women.

Participation by GANE and friends deserves its share of recognition and thanks. Sevananda donated jugs of apple juice, Linda Pace gave the hot chocolate and George Blanchard spent hours making the popcorn. John Rick's crew cleared out the space and hung the neon loaned by The Neon Company and the Yacht Club handled the beer setup and steadfast GANE members volunteered graciously for cleanup, setup, bartending and door tending. Johnny and Katie offered on the spot photos with the proceeds going to GANE. All of these efforts contributed to our largest fund raiser to date and we thank and love you all very much. — Patti Richardson

Johnny & Katie Adams George Blanchard Julia Brooks Angela Carrington Glenn Carroll Tom Ferguson Eric Feidler Danny Feig-Sandoval Sara Feit Annie Hall Dennis Hoffarth Linda Jones Scott Jones Ravenel Kaye Charlotte Lawes Lisa Lawes Nancy Lewis Phil Matthews John Mensing Kevin Murray Bob Paine Rob Pegal Craig Rafuse Patti Richardson Sara & John Ruff Debbie Sheppard Carol Stangler Warren Whipple and Priscilla THANKS!!!

BOOK SALE

*Our **Book & Local Artist Sale** on the grounds of the Little Five Points Community Center was a great success. Many thanks to everyone involved and a special hand for those artists and major contributors who so graciously donated to our cause.*

Susan Ashley • Clyde Broadway
Roy C. Burton • Sarah Butz
Glenn Carroll • B.J. Carwile
• Deborah Lee Heidel •
Patti O'Keefe Hutton • Lou Majors
• Callahan McDonough •
Jan Selman • Christine Sibley
Phyllis Stapler • Carol Stangler
John Sweet • Maxine Tourney
Linda Westman • Janie Wright

ATOMIC PRIMER

Q. Won't nuclear power provide an abundance of low-cost energy?

A. The dream of cheap abundant power from nuclear reactors has continued to fade as the economic realities emerge. Nuclear plants are extremely expensive to build, and costs are mushrooming at the rate of nearly 20% a year. What's more, these plants have many inefficiencies. Commercial U.S. nuclear plants operated at about 59% of their capacity in 1975, far below industry and government projections of 70%-80%. Nuclear generated electricity costs too much. In addition, uranium supplies are highly uncertain and possibly no more abundant than the limited remaining oil supplies.

Q. What will the nuclear program now planned by the nuclear industry cost?

A. Over a trillion dollars.

Q. Is the Union of Concerned Scientists trying to halt all nuclear power forever?

A. No. The Union of Concerned Scientists and other concerned citizens are not denying the energy potential that nuclear power could offer the U.S. But we strongly caution the American people and the decision-makers of this nation that *no large-scale nuclear production must be allowed until satisfactory safety precautions have been taken.* The nuclear industry has failed so far to do this. The history of indifference, carelessness, poor engineering, near accidents, and suppression of information to the public about safety problems demonstrates the need for considerable tightening of controls. If the problems of safety, waste-disposal, sabotage and proliferation cannot be solved, if things continue as they have, there will be an increasing risk of a grave accident — an accident that could cause the American public to reject nuclear power as an unacceptable energy source, and with great dislocation to the country. The problems of nuclear power — technical and institutional — *must* be solved before nuclear power can be accepted. It is only with the help of the public that pressures to bring about the solutions can be achieved. *[Note from GANE: the amount of creative energy and research that would be required to accomplish the goal of making nuclear energy safe enough to risk will give far more returns in the area of efficiency and renewable energy without the risks.]*

Q. Where, then, can we turn for our energy needs if it isn't prudent to continue with nuclear power — or while awaiting solutions to nuclear problems?

A. The Union of Concerned Scientists has recently done an exhaustive analysis of America's energy potential. *What we found is that the U.S. need not depend on nuclear power to fulfill its growing energy needs. By cutting down on energy waste, by better utilization of domestic oil and gas resources, and by focusing on developing energy from the sun and wind,* we can successfully meet the energy challenges that face us and will continue to face us in the next century. For the long term, solar power can satisfy a major portion of the energy needs of the U.S. at a very high level without air and water pollution and without endangering our lives from radiation poisoning. It can provide us with electricity, transportation, heating and cooling our homes, and all the other necessities that nuclear power can provide. But to do this, a major development program must be carried out, and this program cannot continue to have the low priority that the energy industries and the Federal government have assigned it.

Q. What about cost?

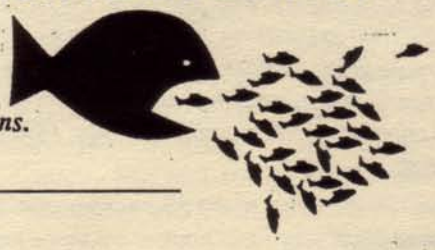
A. The UCS energy study reveals that the cost of producing solar power can be the same as producing nuclear power. Eventually, it is believed that technology could help produce relatively inexpensive solar cells, which would bring the cost down even lower. *[Note from GANE: since this brochure was written, solar energy* ***has*** *become cheaper than nuclear. A 1990 UCS paper cites a California utility which is generating with solar at 8¢/kilowatt-hour compared to 12¢/kWh for nuclear. Solar has come into its own without any government help, let alone the multi-billion* ***tax-payer-funded subsidies given to nuclear.]***

Q. If solar energy is safe, pollution free, and can eventually be produced cheaply, why isn't the U.S. concentrating more on developing solar energy?

A. That's exactly what we are working for. We realize that the nuclear safety issue cannot be resolved in a vacuum, that it has to be resolved in the context of a dramatic reordering of government energy research priorities. So while working to curtail a massive nuclear program until nuclear risks have been clearly much reduced, we are also working to have government divert funds from the nuclear program to speed up the move to a solar economy. *[Reprinted from Union of Concerned Scientists, 1208 Massachusetts Avenue, Cambridge, MA 02138]*

YES! I'd rather be active than radioactive!

I am a "Georgian Against Nuclear Energy."
I support the goals of phasing out the use of nuclear energy as soon as possible, optimizing the use of energy conservation and renewable energy, and opposing the use of nuclear weapons.



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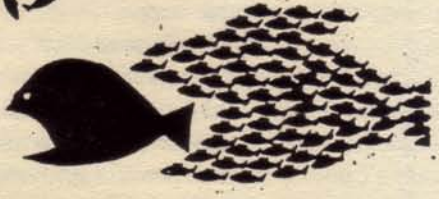

* minimum donation to receive newsletter

Fill out and return today before it's too hot! **Georgians Against Nuclear Energy** • P.O. Box 8574 • Atlanta, GA 30306 • 404/525-7306

AUNTIE NUKE'S SCOREBOARD

TROJAN NUCLEAR REACTOR — SHUTDOWN!

After repeated attempts to shut the reactor by voter referendum failed (the most recent in November 1992 lost by a narrow margin after Portland General Electric spent $5 million in PR to defeat the environmental initiative) the reactor was forced to shutdown less than one week later because of a radioactive leak in one of the now-notorious Westinghouse steam generator tubes. Upon looking at the staggering cost of repairs PGE announced the permanent closure of the nuke plant and that it would become the 11th utility to sue Westinghouse for cover-ups of their unsafe reactor design. Georgia's Plant Vogtle is a Westinghouse reactor.

SAN ONOFRE NUCLEAR REACTOR — SHUTDOWN!

Southern California Edison elected to close Unit I of their San Onofre nuclear plant in November 1992 because of declining efficiency. Modifications that could have kept the 25-year-old plant, California's oldest, running would have been too expensive. It's cheaper to buy electricity from other manufacturers!

CUBAN NUCLEAR REACTOR — CANCELLED!

After $1.1 billion in costs, Fidel Castro reluctantly abandoned Cuba's largest project, the Soviet-designed nuclear reactor. After the fall of the Soviet Union, Russia insisted that Cuba pay hard cash rather than continue the previous bartering system. This news must be a relief to energy-conscious Caribbean lovers!

NUCLEAR WEAPONS TESTING — HOLD THAT LINE!

After nearly 1,000 atomic blasts on the Western Shoshone Nation in Nevada, our country has been persuaded to join France, Russia and the rest of the world and stop the MADNESS of nuclear explosions — at least until October 1993. This is a victory but a short-lived one unless we encourage Clinton who has not yet taken a stand on a permanent end to this tragic activity. Let's keep the pressure up. The Cold War is over — let's keep it that way!

RENEWABLES & EFFICIENCY — TAKING A LEAD!

When voters in Sacramento, California, closed the Rancho Seco nuclear plant in 1989 it was uncertain how the energy would be replaced. Four years later the maverick utility Sacramento Municipal Utility District is exceeding their goals with solutions ranging from the common to the exotic. Dark roofs are painted white to lower air conditioning needs, a "refrigerator graveyard" is filling up as the utility pays up to $275 to entice customers to buy new ones that operate with 75% less power and 20,000 deciduous shade trees have been planted on the south side of buildings. Desired increases in solar power have been delayed because of higher than anticipated costs to manage shutdown of the nuclear plant. But plans are underway to add scores of windmills over the next few years. Don't you just love to see the underdog prevail?

NEW PRODUCTION REACTOR — CANCELLED!

After $1.2 billion spent on research the government's quest to build a prototype reactor for the desperate nuclear industry that is dying on the vine has been indefinitely delayed. Good news by any measure, this issue hits particularly close to home since the Department of Energy was intent on building it on Georgia's border at the Savannah River Plant. Many of you remember speaking to the DOE on this issue and we should take this as a shining example of democracy in action. After we repeated over and over that we don't need tritium and the cold war is over, the official word was spoken September 11, 1992, "no tritium is needed until at least 2012." YEA, Team!

TURKEY POINT NUCLEAR REACTOR — SHUTDOWN

The South Florida Turkey Point reactor sustained heavy damage when Hurricane Andrew made landfall right on it last summer. Floridians for Safe Energy, who pressured the NRC and Florida Power & Light to build it to hurricane standards to begin with, are working hard to convince the utility to spend the hundreds of millions it would take to repair the reactor and rethink the energy picture in renewables and efficiency as devastated South Florida rebuilds. The group also fortuitously had talked the power company into purchasing back-up diesel generators, which saved the plant from meltdown during the black-out that followed the century's worst storm. Thank you, Floridians, for your vigilance!

THE PEOPLE — KEEP PRESSING ON

In a rare public action, 12 members of the 23-member grand jury that spent two and a half years hearing evidence of environmental crimes at the Rocky Flats nuclear weapons plant in Denver, Colorado, asked for a special prosecutor to investigate the way the Department of Justice handled the case. The jurors are still under an oath of secrecy but are highly disturbed that the prosecution fined Rockwell International who operates the plutonium facility for the U.S. government $18.5 million but refused any further indictments against Rockwell and DOE officials who could have been charged with environmental crimes. Asked why this grand jury had gone public, the jury's foreman Wesley McKinley said, "It's not the grand jury that's so special, it's the case." When they sent the letter to Clinton asking for a special investigation it was "to uphold our duty as citizens." This display of courage is worthy of an accolade from Howard Kosell. — ***Glenn Carroll***