

GANESAYER

GEORGIANS AGAINST NUCLEAR ENERGY

SUMMER 1997

REMEMBRANCE

Every August we are reminded that all fears concerning nuclear technology are not necessarily centered around things that might happen, or could happen. On August 6th and August 9th, 1945, for the first and hopefully last time, human beings used nuclear weapons against other human beings. On August 6th the target was a town in Japan called Hiroshima. On August 9th the residents of Nagasaki felt the destructive power of this terrifying new weapon. In both cases large civilian populations were killed and maimed by a weapon that they did not even understand. Guesses as to what the new American superweapon could be ranged from a group of bombs dropped simultaneously to a plan whereby gasoline was sprayed in the air, then ignited. Soon, however, the Japanese government realized that they were dealing with something far beyond any weapon they had previously faced. Within weeks the Second World War came to an end with Japan's surrender to the U.S.

There are a couple of important lessons to be learned from Hiroshima and Nagasaki. First of all, this was the first graphic experience humans had with exactly how powerful nuclear weapons are. Not only were many experts amazed at the sheer physical and structural damage caused, but the effects of acute radiation poisoning on human beings were observed for the first time. It became readily apparent that nuclear explosions left a very toxic legacy that could sicken and kill long after the detonation itself had taken place. To this day the long-range effects of radiation poisoning on the populations of Hiroshima and Nagasaki are studied by experts, broadening our still incomplete knowledge of how radiation destroys



Illustration by Glenn Carroll

healthy tissue. Hopefully, the more we know about the destructive effects of nuclear weapons and nuclear fallout, the less likely we are to use them. Which, in a way, leads to the second lesson that we can learn from Hiroshima and Nagasaki: Hope for a better future. There is a well-known story about a young Japanese girl who contracted leukemia, atom bomb sickness, in the aftermath of the Hiroshima blast. As a motivational tool to help her recover from her injuries she decided that every day she would fold a paper crane, the crane being a Japanese symbol for peace. Unfortunately, the

young girl died shortly thereafter, but her message of hope and peace has been adopted by people of goodwill throughout the world, many of whom fold paper cranes on or around the anniversaries of these two blasts. The act of folding these cranes has become a gesture of hope, of belief in a future where such acts of destruction are nothing more than distant stories of a time long past. We hope you will join us at Sevananda this month to fold some cranes in remembrance of those who were sacrificed at the nuclear altar, and perhaps more importantly, in hope that such sacrifices are a thing of the past.

— Robert Johnson

7 • 9 • 97

GEORGIA TECH SHUTS REACTOR FOREVER

GREAT WORK EVERYBODY!

story on page 3

WE WANT PEACE . . . NOT MOX

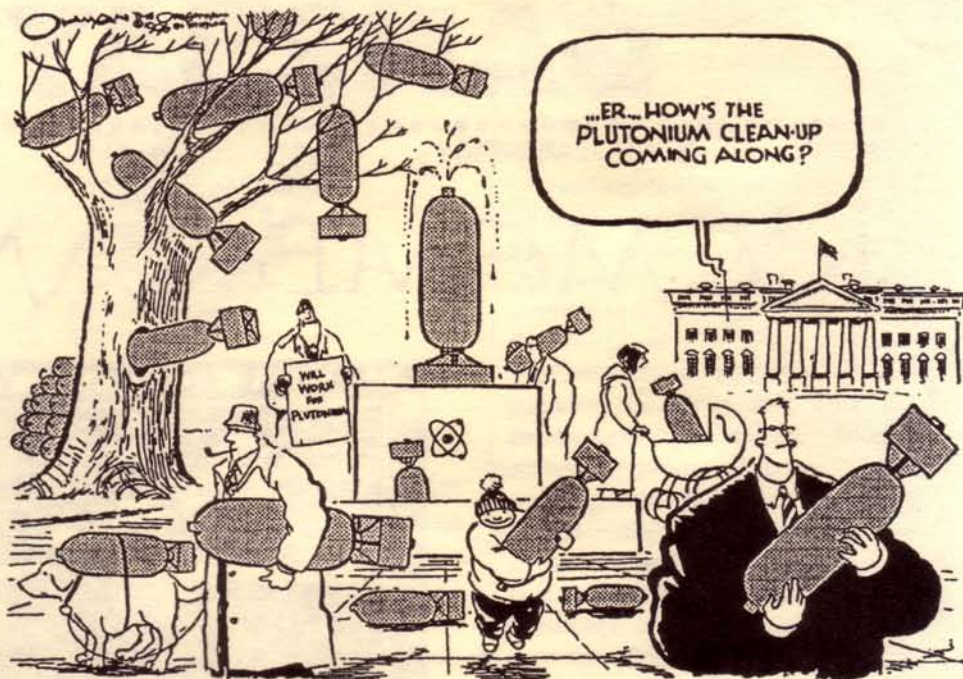
DON'T WORRY BE HAPPY

*DOE coming to town
Loose Plutonium floating round
Don't worry
Be Happy
Missed de chance to vitrify
So we all get blown sky high
Don't worry
Be happy
Load reactor 1/3 MOX core
Melted down all on the floor
Don't worry
Be happy*

. . .

The world is making hopeful strides towards preventing nuclear holocaust by disarming large stores of our nuclear weapons. Meanwhile, the nuclear industry has been proliferating "swords into plowshares" ideas in an effort to capitalize on the massive surplus of weapons plutonium in the U.S. Some utilities want to "burn" the plutonium in commercial reactors.

To "burn" plutonium in a reactor, it is blended with the standard nuclear fuel element uranium into what is called "mixed-oxide" fuel — dubbed "MOX." Why would a nuclear utility like Southern



Company choose MOX? In the current climate of deregulation and competition in the electric industry, nuclear plants are woefully uncompetitive and many utilities are facing the prospect of not being able to afford to run their nuclear plants anymore. Even more unappealing to the utilities is the possibility that in the process of deregulation they will completely lose on their bad investments in nuclear. If the government hires these useless nuclear plants to "dispose" of the Cold War leftovers, the vast quantities of dangerous plutonium, the utilities will have a new customer. And if they can get the fuel for free (*i.e.*, taxpayer subsidized) and sell the electricity too, well, gee isn't it obvious — **why MOX?**

The Southern Company has suggested Plant Vogtle to the U.S. Department of Energy as a prime candidate to undergo conversion for MOX fuel. The electricity produced by Plant Vogtle has never been needed in Georgia and Georgia is now in the process of becoming a competitive energy marketplace. Plant Vogtle is across the Savannah River from the DOE facility, Savannah River Plant, where much of the nasty MOX fabrication work would likely occur, so Southern Company proposes Vogtle as a natural choice.

Utilization of MOX fuel would require the lifting of the 50-year ban on the

commercial use of plutonium — a ban that was instituted to prevent the proliferation of nuclear weapons. As a plutonium economy grows, the risk of theft or diversion increases dramatically. Subsequent separation of weapons-grade plutonium from MOX fuel assemblies is not terribly difficult. Thus the risk of theft of assemblies in transport is a serious concern.

It is so technical, believe me, most of you would stop reading this article right now if we told you the details, but the risks of meltdown are significantly higher for MOX reactors. And if you've been following our NUKE NOTES column — you know Japan is stymied on its MOX efforts after a series of serious fires, explosions and radiation releases.

The costs to taxpayers will come in the form of subsidies from Federal government to utilities who will refit their nuclear reactors to burn MOX fuel. New facilities will have to be built to manufacture mixed oxide fuel assemblies and it is estimated it would take 12 years and billions of tax dollars. During this time the risk of the theft of plutonium by terrorists continues. A nuclear arms trigger of the type used against Nagasaki fits in the palm of your hand and the radioactivity of plutonium is so low-energy it can be shielded by paper, so it

GANESAYER

Summer 1997

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Atlanta Journal/Constitution
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can be easily handled by terrorists. MOX fuel is more expensive than normal reactor fuel and utilities have already stated that they expect to get the MOX assemblies free.

The MOX option would necessitate the revival of the reprocessing industry in the US. Reprocessing involves the use of acids and solvents to separate radioactive substances. This industry will produce massive amounts of liquid, chemically toxic and radioactive wastes which will have to be contained for an indefinite period. Our previous experience with reprocessing was disastrous, polluting Lake Erie so extensively that there is little hope it will ever be contained.

Finally, spent MOX fuel assemblies still contain most of the plutonium after they are burned up and so the disposal problem remains!

GANE believes the true course to disarmament and the "peace dividend" is to treat the retiring atomic triggers as what they are — nuclear waste. The plutonium should be down-blended to a non-fissionable form and immobilized in molten glass (a process called vitrification). Vitrification technology is already available so we can begin now to safely disarm and immobilize our retiring arsenal of nuclear bombs. However, since the resulting glass cylinders would have a low-specific activity (their radioactivity is not very penetrating) they are still vulnerable to simple theft. It is also possible to separate the plutonium from the glass and re-enrich it to weapons-grade, although such facilities would be enormous and easy to detect in the spy game. Anyway, as a preventive against theft the glassified plutonium may then be encased in huge glass cylinders mixed with extremely hot, penetrating radioactive wastes. The high specific activity of the cylinders and their tremendous weight would make theft nearly impossible, as proximity to the cylinders would cause a lethal radiation dose within minutes, and industrial cranes would be required to lift the cylinders. These double cylinders will then need to be stored in perpetuity (God help us) above ground in a retrievable state.

The nuclear industry wants a mission? NUCLEAR WASTE! JOBS FOR EVERYBODY! Let's get on with it!

— David McBride & Glenn Carroll

GEORGIA TECH DECIDES TO RETIRE REACTOR

WE DID IT! Georgia Tech announced its decision on July 9, 1997, to permanently close the reactor on Atlantic Drive in downtown Atlanta citing its age and lack of use.

We can breathe a sigh of relief and give ourselves a well-deserved pat on the back for our relentless efforts . . . and start looking at the reactor anew. Yep, we can officially start calling it nuclear waste now. Georgia Tech is planning to submit its decommissioning plan in two years. If we're going to keep the reactor out of the landfill in Barnwell, South Carolina, we're going to have to get creative. Some suggestions are already floating around: turn it into a museum, weave a dense kudzu wreath around it, place a plaque on the site. But even if we figure out what we envision for its future — we'll have to convince the decision makers at Georgia Tech and the NRC to see it our way.

It's a good place to be, at the nuclear waste stage of the problem. We have been involved with Georgia Tech for many years now concerning the reactor and have developed positive relationships with many folks over there. It's reasonable to hope that they would rather sit down with us than litigate with us, so be thinking about it. They have a lot of talent, perhaps they will seriously entertain our questions, issues and concerns and come up with a new direction for the nuclear waste age.

— GLENN CARROLL

Fed Talk

DOE DISCUSSION DRAFT

ACCELERATING CLEANUP: FOCUS ON 2006 or PETER DRUCKER MEETS P.T. BARNUM

Forget the title, this release from the environmental arm of the DOE is a budget increase request. (What peace dividend?) The hash:

1. HIGH-LEVEL FUNDING - asks for \$5 billion extra dollars over the next 10 years, with a promise to save \$10 billion eventually by 2070 (sometime in the future) by earlier closures, etc.
2. ENHANCED PERFORMANCE - hopes to save \$3.9 billion through management tools including project management with all activities having a scope, a schedule, and a cost for a defined end-state. (What were we doing?)
3. COST REDUCTION - each field office (for example, SRS) "pledges" to make reductions to offset inflation of 2.7% (Yavol)

There are some assumptions in the draft:

1. Waste generators take own waste by 2000
2. WIPP opens in May, 1998
3. Cleanup is defined as containment and monitoring.

There it is! Give the Feds more money, they have a new plan, and even workers promise to do better! Whoopee, do, do. And by the way, DOE's not even really doing the work they say (clean-up) and any extra waste after 2000 A.D., is not in their job description.

— BOB PAINE

Researched by Ann Mahoney

Edited by Glenn Carroll

AJC = Atlanta Journal/Constitution

NYT = New York Times

2/7/97: TVA GOES INTO H-BOMB BUSINESS Watts Bar nuclear plant in Spring City, TN, will be used by the U.S. Department of Energy (DOE) for 18 months to produce an ounce of tritium to see if making tritium in electric power reactors is technically straight-forward and safe. TVA is a Federal agency. DOE believes it will choose a new tritium production source next year. *AJC*

2/11/97: URANIUM BULLETS Stirring up new ill-will with Okinawa, the U.S. military acknowledges that its jets mistakenly fired 1,520 spent uranium bullets in 1995 during shooting practice near the island, then waited a year to notify Japan. The U.S. said the bullets are no more radioactive than old color TV sets. *AJC*

2/25/97: THREE MILE ISLAND DATA POINTS TO CANCER/RADIATION EXPOSURE CONNECTION Steven Wing, an epidemiology professor at the University of North Carolina applied new analytical techniques to data first analyzed in 1990. Wing and his team found that lung cancer and leukemia rates were at least twice as high for residents living downwind from the reactor as for those upwind. The 1990 study found only a slight increase in cancer risk. Wing said, "This cancer increase would not be expected to occur over a short time in the general population." *AJC*

2/26/97: GEORGIA BILL TARGETS NUCLEAR WASTE HAULING Rep. June Hegstrom (D-DeKalb) introduced a bill to require the state Public Service Commission to impose standards for certifying and training drivers of trucks laden with nuclear wastes, and to impose criteria for emergency response training and cargo inspection procedures. The bill also increases bonding or indemnity insurance commensurate with the costs of a possible accident. Although it may be several years before the wastes from commercial power plants start moving through Georgia, the state needs to prepare now to make sure it can deal with possible accidents involving high-level nuclear waste says Hegstrom. More than 50,000 tons of high-level spent nuclear fuel are now stored at the nation's 110 nuclear power plants. "If the proposed facility is opened in Nevada, numerous shipments of dangerous nuclear waste will begin moving on Georgia's highways each year," says Hegstrom. The Nevada dump is bitterly opposed by Nevada and anti-nuclear groups. *AJC*

2/27/97: ATOMIC WASTE PROTEST Germany's interior minister warns anti-nuclear activists to call off plans to block the transport of atomic waste to a storage facility. More than

25,000 police will be assigned to protect the shipment and control demonstrators — the largest deployment since World War II. The shipments are from a nuclear power plant in Bavaria to a storage facility in the northern town of Gorleben. *AJC*

3/2/97: RETURN TO BIKINI Four elderly women who were evacuated from Bikini Atoll more than 50 years ago returned home to begin the ceremonial process of cleaning up their still radioactive island. They had not been back since the U.S. Navy took them to the island of Kili in 1946 so a series of nuclear bombs could be exploded at Bikini. Decades of efforts by the American government to decontaminate the atoll have led to the recent pronouncement that radioactivity there is acceptable. The island has been saturated with potassium fertilizer to prevent coconuts and other plants from sucking up radioactive cesium-137 from the ground. *AJC*

3/3/97: NUCLEAR WASTE PROTEST GROWS IN GERMANY Hundreds of farmers riding flower-decorated tractors joined about 10,000 other people to protest the storage of nuclear waste in a northern German town. Dozens of the farmers used their tractors to block roads leading to Gorleben, the storage site, in the third consecutive day of massive anti-nuclear protests centered on the town. The protesters lined roads and railroad tracks that are expected to be used during the shipment. *AJC*

3/6/97: 5,000 GERMANS ATTEMPT TO BLOCKADE NUCLEAR WASTE SHIPMENT Trucks carrying six 90-ton containers of spent fuel rods came into Gorleben under heavy police protection in Germany's largest postwar security operation. The waste is from two German nuclear power stations and a French reprocessing plant. *NYT*

3/7/97: RISKY REACTORS China believes it can build an experimental breeder nuclear reactor by 2000 that should use its scarce supplies of uranium more efficiently. China expects to be able to build the reactor for \$103 million and begin commercial operation by 2003. Breeder reactors are supposed to produce more fuel than they consume. The U.S., Britain and Germany have given up trying to build any breeders because of high costs and dangers of the toxic plutonium by-products. *AJC*

3/8/97: BROOKHAVEN LAB DIRECTOR RESIGNS Dr. Nicholas P. Samios, admitting that the Brookhaven National Laboratory contaminated ground water beneath the lab's main reactor on Long Island, New York, resigns after 15 years to return to a research position at the lab. There is a growing dispute between the lab and its Long Island neighbors over the plume of tritium that is leaking from a 68,000 gallon spent-fuel tank beneath the main reactor. *NYT* and *Science*

3/8/97: FRENCH FOOD CONTAMINATION A family showed signs of radioactive contamination after eating wild mushrooms from the forests of the Vosges Mountains. The exposure to cesium-137 was discovered when one family member was tested before being assigned to duty aboard a nuclear-powered submarine. The contamination is believed to have come from the 1986 Chernobyl disaster, or from U.S. or Russian nuclear testing in the 1960s. *AJC*

3/12/97: FIRES BREAK OUT AT NUCLEAR SITE IN JAPAN Two fires started within 10 hours at Japan's nuclear fuel reprocessing plant in Tokai, 70 miles northeast of Tokyo. *NYT*

3/14/97: NUCLEAR PLANS SHELVED Indonesia no longer intends to build 12 nuclear power plants — and may not build any for at least 30 years — because it has made new oil and gas discoveries. *AJC*

3/14/97: SLOW NUCLEAR RESPONSE Japanese workers sealed off a damaged nuclear plant and the company that runs the plant admitted that employees delayed reporting both a fire and a later explosion for 30 minutes while they waited for orders. The fire apparently led to the explosion 10 hours later in a waste-handling facility. The person with sole authority to make emergency decisions was on vacation. *AJC*

3/15/97: RADIOACTIVE WATER FOUND IN UNDERGROUND TANK Strontium and tritium were found in 750 gallons of water pumped from an old underground tank at Brookhaven National Laboratory on Long Island. The isotopes were captured condensation dripping from ventilation and cooling systems around two research reactors. *NYT*

3/15/97: NRC OFFICIAL GUILTY IN MAINE YANKEE CASE Former NRC Project Manager Edouard H. Trottier pleads guilty to sending several pages of a confidential NRC report to the operators of Maine Yankee nuclear plant. The maximum penalty is one year in prison and a \$100,000 fine. *NYT*

3/16/97: JAPANESE NUCLEAR MISHAP RE-ASSESSED The amount of radiation released in an accident at a nuclear plant in northeastern Japan was at least 10 times higher than reported by Power Reactor and Nuclear Fuel Development Corp. *AJC*

3/16/97: JAPANESE REPROCESSING ACCIDENT Workers at a nuclear fuel reprocessing plant were dusted with radioactive particles after a fire broke out at the facility northeast of Tokyo. *AJC*

3/16/97: DIRTY FRENCH REPROCESSING Greenpeace announced that radioactivity measured on a beach adjacent to France's nuclear reprocessing plant at La Hague, near Cherbourg in western France was up to 3,000 times above acceptable levels. The measure-

ments were taken from a pipe that carries waste water from the plant into the sea. The pipe is usually submerged, but has recently been exposed by the lowest spring tides in 10 years. *AJC*

3/21/97: GEORGIA POWER SETTLES WITH WHISTLEBLOWER An out-of-court settlement was reached with Allen Mosbaugh, who was dismissed as manager of Plant Vogtle in 1990 after exposing that Georgia Power management supplied false safety information to the NRC. In 1995 Labor Secretary Robert Reich ordered the utility to reinstate Mosbaugh with 5-1/2 years back pay. Mosbaugh has not been given his job back. The NRC withheld approval of a license transfer for Plant Vogtle from Georgia Power to the Southern Nuclear Operating Company pending resolution of Mosbaugh's labor case. *AJC*

3/25/97: JAPAN RETHINKS REPROCESSING A fire and explosion in Japan's only nuclear waste reprocessing plant in Tokai have raised public concern about the safety of atomic power and cast a cloud over Japan's already controversial program to harness deadly plutonium as a source of energy. An accident on 3/11/97 has been classified as the worst nuclear accident in the nation's history. 37 workers were exposed to radiation. Plutonium escaped into the atmosphere and was detected 23 miles from the plant. The explosion blew out most of the windows in the four-story concrete building. A Belgian reprocessing plant had a similar accident in 1981. Japan's fast-breeder reactor, Monju, has been closed since a serious sodium coolant leak there in 1995. The Japanese reprocessing plant provided fuel for Monju. Both facilities are run by the Government-owned Power Reactor and Nuclear Fuel Development Corporation which was accused of responding too slowly to the coolant leak and attempting to cover the accident up. It is becoming harder for the Government to find places to accept the many nuclear plants it wants to build. *NYT*

3/28/97: FRANCE DISTRIBUTES IODINE NEAR REACTORS Local authorities will begin distributing potassium iodide (KI) tablets to 600,000 people living within 10 kilometers of 24 nuclear installations including France's 20 nuclear power plants. When there is an accident, the residents would take the tablets to saturate their thyroid glands with a stable isotope of iodine and thereby block the uptake of radioactive iodine isotopes, byproducts of nuclear fission that cause thyroid cancer. In the U.S. stable iodine is not generally made available to the public. Some U.S. experts believe a reevaluation of this policy is long overdue. There have been an alarmingly high number of thyroid cancer cases among children who were living near the Chernobyl nuclear power plant at the time of the 1986

accident. Scientists link these cancers to exposure to radioactive iodine. The World Health Organization has recommended that all schoolchildren in Europe have immediate access to KI tablets when there is an accident. It is clear that the Chernobyl thyroid cancer epidemic extends hundreds of kilometers from the plant. (*Science*)

4/4/97: URANIUM SMUGGLING Two Macedonians were arrested trying to sell nearly nine ounces of high-grade uranium to foreign buyers for \$1.2 million. They were charged with illegal possession of nuclear material. Police did not identify the source, but said the uranium had been smuggled into Macedonia. *AJC*

4/4/97: NEW JERSEY FUSION TEST REACTOR CLOSING The 50-year-old dream of generating cheap and inexhaustible energy from fusion faces an uncertain future with the closure of the 15-year-old, \$1 billion Tokamak Fusion Test Reactor at Princeton. No fusion reactor has ever achieved a self-sustaining "burn" of nuclear fuel. The future of fusion is clouded by scarcity of money and questions from physicists about its practicability. Dr. William E. Parkins, retired physicist from Rockwell writes, "It is not logical to continue to divert a substantial fraction of our physical sciences resources to the hopeless objective of fusion power." Dr. James Krumhansl of Cornell asks, "Given the 50-100-year time scale now being suggested, why the air of wartime urgency that seems to drive the fusion reactor program?" The Government supports inertial confinement fusion because the experiments shed light on the behavior of full-scale thermonuclear weapons. *NYT*

4/11/97: OYSTER CREEK NUCLEAR PLANT LIKELY TO REMAIN CLOSED GPU, Inc., the New Jersey utility that owns Oyster Creek Plant said they were exploring options to sell or close the shut nuclear plant by 2000. The plant will be too expensive to operate once free-market competition begins. Changing economics and abundant power from non-nuclear sources have rendered the plant unneeded. Following the announcement, GPU's stock rose 50 cents in heavy trading on Wall Street. *NYT*

4/16/97: ALEXANDER NIKITIN RECOGNIZED The 1997 Goldman Environmental Prize for Europe was awarded to Alexander Nikitin of Russia. Nikitin, a former naval officer, was imprisoned for revealing to the world the potential for nuclear catastrophe from Russia's aging nuclear submarines based in the Kola Peninsula, near the Norwegian border. Nikitin has been charged with treason. The Goldman Prize is awarded every year to an environmental hero from each of the Earth's six continental regions. Nikitin will receive \$75,000. *NYT*

4/19/97: VOGTLE SHIPS RADIOACTIVE PACKAGE A package containing a 12-foot metal pipe used to mount cameras that monitor high-radiation areas was found to emit twice the allowed radiation level. An NRC report said the high radiation level "resulted from a small, microscopic piece of crud material which had not been identified during the original surveys." Although the pipe was flushed with water, the microscopic crud may have remained inside because the inside of the pipe wasn't dried, a Southern Nuclear spokeswoman said. *AJC*

4/19/97: JAPANESE NUCLEAR PROTEST Protesters scuffled with police when they tried to block trucks carrying 20 tons of high-level nuclear waste to a storage depot in Rokkasho. The waste, which originally came from Japanese power plants, arrived in port after a two-month voyage from France where it had been reprocessed. About 300 demonstrators met the Pacific Teal as it brought the waste material to the fishing village 350 miles northeast of Tokyo. *AJC*

4/20/97: RADIOACTIVE BOAR Nearly 50 people living near the French town of Saint-Jean d'Ormont were tested for contamination after radioactive traces were found in wild boar caught in the region. The tainted animals were caught by hunters and were found to have three times the allowable levels of cesium-137 and strontium. The discoveries have caused concern that the nuclear cloud released by Chernobyl in 1986 is still affecting the region. *AJC*

5/2/97: U.S. FIRES CONTRACTOR AT BROOKHAVEN LAB For 50 years the Brookhaven National Laboratory on Long Island, NY, operated with a culture that money spent on environmental safety was money lost for scientific research, says a DOE report. Cited as evidence was failure of the contractor, Associated Universities Inc., to respond to an underground plume of tritium-contaminated water leaking from the lab's reactor for more than 10 years. In 1986 elevated levels of tritium were discovered in a well south of the reactor. In 1992 an engineering analysis calling for three monitoring wells to be installed was disregarded. In 1994 a promise to Suffolk County Health Service to install two wells was broken. The plume, which is probably leaking from the spent-fuel pool has traveled 1.5 miles. Brookhaven was declared a Superfund site in 1989 due to pesticide and chemical-solvent contamination of the ground water. Two months ago, lab workers discovered a long-forgotten tank containing radioactive material. DOE expressed concern with

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the level of public distrust over Brookhaven and called a report funded by taxes that described local citizens' groups as "the opposition" appalling. *NYT*

5/3/97: NUCLEAR PLANT IS REJECTED OVER RACISM CONCERNS The NRC has rejected an application to build an \$885 million nuclear plant near two black neighborhoods in Louisiana. This is the first time the NRC has rejected a license application. "Certainly the possibility that racial considerations played a part in the site selection cannot be passed off as mere coincidence," the licensing board wrote in its decision. The uranium enrichment plant was sited between Forest Grove, a community of 150 people that was founded by freed slaves after the Civil War and Center Springs. Both communities are 97% black. *NYT*

5/5/97: REACTOR ON RAILS A train carrying a nuclear reactor rolled into North Carolina as several anti-nuclear groups along its path claimed the shipment represented a public health threat. The retired reactor vessel — bombarded with extreme heat and radiation for 31 years — is from the Yankee Rowe plant in Rowe, MA. It is traveling by rail to be landfilled in Barnwell SC. Weighing in at 365 tons, the vessel has steel walls 8 inches thick. Eighty tons of concrete now fill the vessel, which retired in 1991. It is encased in a cylinder of 3-inch thick steel. *AJC*

5/17/97 EGYPTIAN REACTOR EXPECTED ON-LINE BY OCTOBER Egypt expects to begin operating its second research reactor six months ahead of schedule. The 22-Mw reactor is expected to cost \$63 million and is 11 times as powerful as the Soviet-made 2-Mw reactor built in 1961 25 miles northwest of Cairo. *AJC*

5/19/97: CALIFORNIA UTILITY COMMITS TO SOLAR POWER Sacramento Municipal Utility District (SMUD) will buy 10-Mw of solar cells from DOE by 2002. The large contract is expected to push the photo-voltaic cells' cost down to a competitive level. The solar cells will supply enough power for hundreds of houses. The cells are thin-film silicon, similar to what pocket calculators run on. SMUD will install 300 to 500 square feet of cells on the roofs of about 4,000 customers who volunteer for the project. About 700 customers already have such installations and pay \$4 a month extra as "PV Pioneers." In 1989 voters decided to shut their nuclear plant, Rancho Seco. Since then SMUD has tried to cut demand, paying customers to buy more efficient refrigerators and planting thousands of shade trees. It built a 2-Mw solar plant on the site of the old nuclear plant. Total worldwide production of solar cells is about 96 Mw a year. The U.S. produces about 45 Mw of the total. *NYT*

5/20/97: MONEY SHORTAGE JEOPARDIZES FUSION REACTOR A \$10 billion project intended to demonstrate by 2008 that hydrogen fusion would be commercially practical is being delayed due to lack of funds. The project was supported by Japan, a consortium of European nations, Russia and the U.S. Japan was expected to pay the largest share because it is likely to host the reactor, but Japan has yet to offer a site. The dream of nuclear fusion has persisted despite a growing realization of the extreme difficulty of fusing ordinary hydrogen nuclei. The expectation that hydrogen fusion would be nonpolluting has been dampened by experts who believe that parts of a fusion reactor would become dangerously radioactive. *NYT*

5/28/97: DIABLO SETTLES CLEAN WATER ACT CASE FOR \$14 MILLION Pacific Gas & Electric agrees to pay \$14 million to end a lawsuit filed by state and Federal officials accusing PG&E of downplaying the environmental effects of the cooling water intake system on young fish at its Diablo nuclear reactor near San Luis Obispo, CA, 180 miles south of San Francisco. This is believed to be the largest settlement involving a single company under the Clean Water Act. *NYT*

6/2/97: TRITIUM CLEAN-UP PLAN ON LONG ISLAND CRITICIZED DOE announced plans for cleaning up the 1.5 mile plume of tritium from the Brookhaven Laboratory that has contaminated ground water on Long Island. Environmentalists may file for a court injunction to halt the pumping of ground water to remove tritium, charging that the tritium will evaporate as toxic fumes into the atmosphere and enter the food chain. Some scientists say efforts to move the tritium are nothing more than a public relations stunt. *NYT*

6/12/97: URANIUM FOUND Police in Lithuania discovered 110 pounds of uranium believed to have been stolen from a nuclear power plant five years ago. Sixty-six pounds of uranium were found buried in an underground vault at a lake not far from Vilnius. An additional 44 pounds were found in the town of Visaginnas, site of the Ignalina nuclear plant. *AJC*

6/23/97: RADIATION EXPOSURE Passengers aboard a May 2 KLM flight to London from Amsterdam were exposed to excessive amounts of nuclear radiation. KLM acknowledged never telling the passengers, but insisted the radiation was not excessive. British airport authorities are investigating the incident. *AJC*

6/29/97: ATOMIC WEAPONS USED AGAIN Rep. Cynthia McKinney has enlisted the support of several dozen House colleagues in urging President Clinton not to resume small-scale nuclear weapons experiments at the Nevada Test Site. The DOE has announced plans to resume underground tests. A letter from the members of Congress calls on Clinton to order cancellation of the tests, which the group fears would undermine international support for the Comprehensive Test Ban Treaty that is awaiting Senate ratification. *AJC*

7/1/97: NUCLEAR WEAPONS TEST SET DOE says its planned nuclear test does not violate the Comprehensive Test Ban Treaty. Environmental and peace activists say the tests are inconsistent with a post-cold-war policy of reducing the nuclear arms threat. The tests at the Nevada Test Site will set off high-powered explosives to measure their effect on plutonium. The experiment is allowed DOE argues, because no nuclear reaction will occur. *NYT*

DEPLETED URANIUM LITTER POISONS IRAQI DESERT

Gulf War Syndrome and the conditions among the Iraqi people can be linked directly to the use of depleted uranium missiles in Iraq. More than 350 tons of this metal was dispersed on Iraqi battlefields in the war and the Pentagon admits that up to 75% of each projectile becomes a gas of solid and liquid particles on impact with its target. Use of these weapons turned Iraqis and American soldiers into human guinea pigs who are now suffering with increased cancers, respiratory problems and children with horrible birth defects. Babies have been born without arms or with missing thyroid glands. While background radiation at the Earth surface today is about .01 millirem an hour, radiation at the surface of a DU penetrator projectile is about 250 millirem an hour or 25,000 times the radiation burden to which we are already subjected. If we do not stop the use of DU weapons, history will remember our nation as barbarians who covered the earth with their radioactive waste in an effort to dispose of it. An international movement is needed to ban the use of DU along with other chemical weapons.

— DAVID MCBRIDE

Where the Rubber Meets the Road

IS GEORGIA READY TO COPE WITH NUCLEAR WASTE?

“Where the rubber meets the road,” spoken in a delicious north Georgia twang, is the phrase Barry Church uses to describe his ultimate and lonely responsibility for responding to an accident involving high-level nuclear waste. Barry is a fireman in the north Georgia mountains, director of the Emergency Response unit for Habersham County.

At a Nuclear Waste Transportation Forum which GANE co-sponsored in April, Barry spoke up after hearing two state regulatory officials in Atlanta say they've got every base covered in the event of an accident. But Barry knows he is responsible for Habersham County, some two hours away from Atlanta's so-called “seamless” mesh of state and Federal emergency responders. Barry knows his department doesn't have radiation detection equipment. Barry knows his department hasn't been trained in the event of a serious radiation release. Barry knows he and other emergency response personnel are “where the rubber meets the road,” and his vehicle will be the first on the scene.

Georgia State Representative June Hegstrom convened the forum at the State Capitol to raise public and legislative awareness about shipments of nuclear materials on the nation's highways and rail lines. State legislators listened as officials from the Department of Energy, Nuclear Regulatory Commission, Georgia regulatory agencies, nuclear industry, and non-profit organizations provided a “balanced” educational

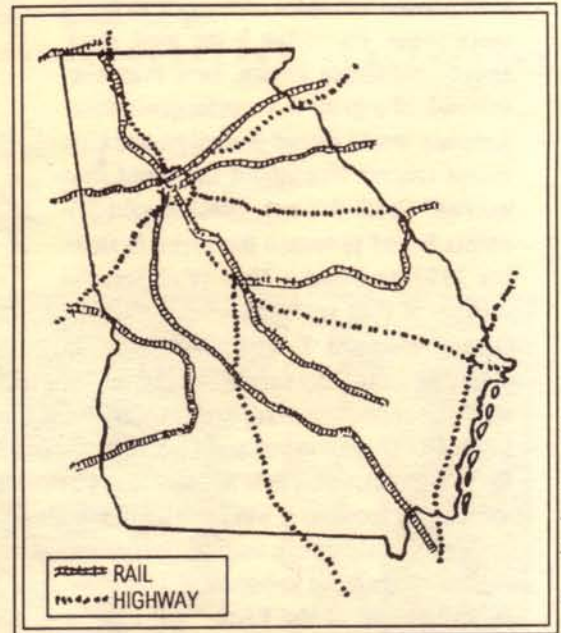
assessment of current U.S. plans to ship thousands of tons of commercial and bomb-related radioactive waste to Nevada.

Under pressure from the nuclear industry who wants the waste out of its back yard, the U.S. Senate recently voted to build a temporary nuclear waste dump in Nevada by 2002, with action in the House soon. All sides believe dump proponents will win by a strong majority. President Clinton has pledged to veto the bill if it passes.

As a result, Rep. Hegstrom insists that, “States can and must take an active and responsible role immediately to insure that maximum safeguards are taken with respect to transportation routes, training for emergency responders, and liability in the event of accidents. The economic impact alone of a nuclear ‘incident’ could be catastrophic for states.” Her legislation seeks to protect Barry Church and other emergency responders out there “where the rubber meets the road.”

— Marianne Webster

Editor's Note — There are a lot of barriers yet to the siting, construction and opening of a centralized storage facility. Rep. Hegstrom's nuclear waste bill is an effective springboard for dialogue about the realities of nuclear waste. As an alternative to transporting and dumping nuclear waste



Graphic by Joan King

in a western state that has no nuclear power plants, GANE is interested in the option of at-reactor storage. Dry-cask technology is being developed and used at some sites. There are problems to be worked out with the technology—failure to dry the fuel before storage, containment domes have not been implemented, and as ever, the fantastically long hazardous life poses daunting questions. Georgia's Plant Hatch on the Altamaha River is running out of pool storage and is expected to apply for a dry storage permit. We're into the nuclear waste phase, folks, open your minds wide . . .

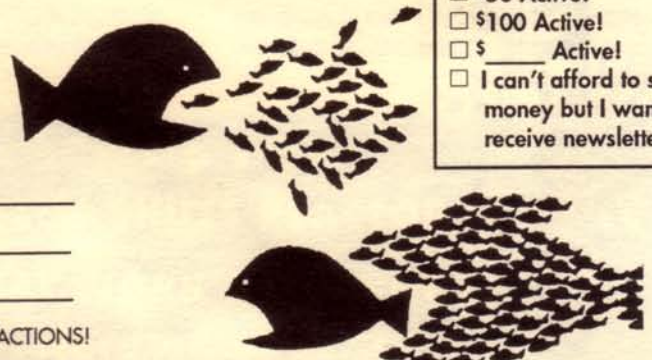
YES! I'd rather be active than radioactive!

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 and manufacture of nuclear weapons.

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CANCEL CASSINI

Although alternative power sources are available, Nasa intends to launch a 70+ lb plutonium payload into space on board the Cassini space probe. Plutonium is the most carcinogenic substance known. Less than one-millionth of a gram is a carcinogenic dose. A mishap would spread plutonium and thus excess cancers throughout the world. Not worried? Check this out. These Rocket Scientists intend to launch the probe in October 1997 on board a Titan IV rocket, the same kind that exploded over the Pacific Ocean on August 2, 1993 destroying its secret \$2 billion spy satellite. If the Rocket explodes on the launchpad, lethal plutonium would be spread for miles around. Further, it is planned to maneuver the rocket through two orbits around Venus and then back towards Earth to undergo a "slingshot" through Earth's gravitational field in order to get sufficient power to reach Saturn. However if the rocket dips too low, it will burn up in the atmosphere of Earth. Then, according to City University of New York nuclear physics professor, Dr. Michio Kaku, the plutonium - "the most toxic chemical known to science" - would "shower down with a tremendous tragedy for the people of the Earth." Dr. Kaku and others say the needed electricity for the mission could be solar energy from photovoltaic panels on Cassini and, in deep space, from long-lived fuel cells. NASA, the DOE, the nuclear laboratories and corporations insist on using Plutonium. Although the stated rationale for using plutonium is to power rocket functions, Cassini is the first step towards U.S. militarization of space. If you would like to learn more about Cassini and an international rally to be held on the eve of the October 6 space shot contact Denise Laffan - 404-627-8948. — DAVID MCBRIDE



FREE VANUNU

Mordechai Vanunu, Israeli nuclear technician who was charged with treason and espionage for revealing Israel's not-so-secret nuclear weapons program, is in his 11th year of relentless solitary confinement imposed by the Israeli government. Vanunu received a special award in absentia on July 21st honoring his moral witness and great personal sacrifice in the struggle for peace with justice. The award was established in his name by the Episcopal Peace Fellowship whose presiding Bishop Edmund L. Browning was denied an Easter visit to Vanunu by prison authorities.

Vanunu was lured from London to Rome by an attractive American woman who was an agent of the Mossad, Israel's Intelligence service. Once in Rome other Mossad agents kidnapped Vanunu and returned him to Israel. Today, as Vanunu languishes in solitary confinement in Ashkelon Prison Israel, the attractive secret agent Cheryl Ben Tov cruises around Orlando in a red convertible. She is the daughter of a wealthy retired tire dealer and wife of Ofer, a real estate salesman who sells time shares in condominiums. The reporter who found her out says that she acknowledges her role in the kidnapping and that she and her husband do occasional freelance work for the Mossad. Cheryl refused to be interviewed.

GANE continues efforts to free Vanunu and calls on peace activists to support this campaign. A 27-minute BBC videotape about the case is available from — U.S. Campaign to Free Mordechai Vanunu, 2206 Fox Ave., Madison, WI 53711.

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How time flies when you're changing the world!
Please share with us your memories, anecdotes, photos
and vision of GANESAYER — past, present and future.

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