

GANESAYER

GEORGIANS AGAINST NUCLEAR ENERGY

FALL 2002

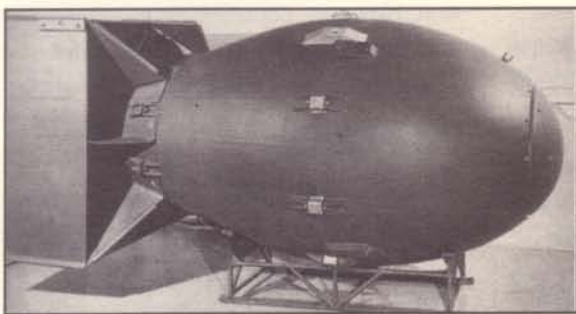
NAGASAKI, PLUTONIUM & THE SOUTH

BOCK'S CAR AND FAT MAN

On July 16, 1945, scientists in the U.S. ushered in the Atomic Age with a nuclear explosion fueled by a new man-made radioactive element named Plutonium.

The explosion in the New Mexico desert was named Trinity. Its purpose was to test the complex design of fissioning plutonium atoms into an atomic explosion.

On August 9, at 1:56 a.m. the B-29 bomber Bock's Car which held "Fat Man," a plutonium bomb weighing almost 10,000 pounds, took off to fulfill President Truman's promise of a "rain of ruin" on Japan. The crew of Bock's Car was briefed that they had the bomb that would make the uranium Hiroshima bomb obsolete. The plutonium bomb's weight nearly prevented the B-29's take-off.



Fat Man, the Nagasaki bomb, was made at Los Alamos, New Mexico. Photo: National Archives, Washington, D.C.

"I'd have to say Japan won the war after all when you look at the mess we made for ourselves with this weapon."

— retired DuPont/SRS worker

It was a cloudy day over Japan. Japanese officials had barely been able to assess the disaster at Hiroshima. The people of Nagasaki had only propaganda flyers dropped from U.S. warplanes to alert them of possible impending doom. The U.S. had already been bombing Japan heavily, and Nagasaki had conducted a bomb shelter drill for its citizens earlier that morning.

Mitsubishi war factories placed Nagasaki high on a list of potential targets for U.S. bombers. Nagasaki was previously little known in the West except to music lovers who knew it as the setting of Puccini's beloved *Madama Butterfly*.

Bock's Car was running low on fuel. With no visibility because of the clouds, the crew contemplated dropping its



The plutonium bomb Fat Man exploded over Nagasaki on August 9, 1945. Photo: Air Force Historical Research Agency, Maxwell Air Force Base, Alabama.

10,000-pound burden into the sea and returning to base.

Then, at 10:58 a.m., the clouds opened revealing a clear view of the Mitsubishi plant. The plutonium bomb landed 1.5 miles from its aim point at 11:02 a.m.

continued next page

BY GLENN CARROLL

NAGASAKI, PLUTONIUM & THE SOUTH

continued from page 1

The devastation from the explosion was different from Hiroshima as Nagasaki hills shielded parts of the city from the blast. However because the plutonium blast was stronger, the valley where the bomb fell suffered horrific destruction. Nagasaki's geography also spared it the firestorms which ravaged Hiroshima, but most of the structures, especially houses, were made of wood and were destroyed by fire just the same. 35,000 to 70,000 people died in the explosion.

GANE

Georgians Against Nuclear Energy

founded in 1977

GANE'S MISSION

- Phase out nuclear power and promote conservation and sustainable renewable energy sources such as wind and solar
- Abolish the global use of nuclear weapons
- Promote the formation of ethical social policies for nuclear waste handling and containment

GANESAYER

Fall 2002

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When Bock's Car returned at 11:39 p.m., almost out of fuel, the crew had to send up flares to get the attention of the radio control tower. No one greeted them. The men who had not eaten for 22 hours finally located a mess attendant who was able to offer pancakes to the famished airmen.

In contrast, the crew of the Enola Gay which bombed Hiroshima had returned to a hero's welcome.

On August 10 Truman decided against dropping the third bomb saying, "The thought of wiping out another 100,000 people was too horrible." He said he didn't like the idea of killing "all those kids."

By September many of the survivors began to experience a new nightmare — radiation sickness. They began to lose their hair. Diarrhea and fever followed. White blood cells which protect the body from disease were destroyed. Tens of thousands of people died from the bomb sickness.

During Allied occupation of Japan in the years that followed, Hiroshima and Nagasaki received no help from the U.S. or Japan because Allied censorship kept the outside world from learning the disastrous fate of those cities.

PLUTONIUM AND THE SOUTH

The plutonium for the Nagasaki bomb was made at Los Alamos, New Mexico, and plutonium became the chosen material for state-of-the-art atom bombs. Then in 1949, scientists used radioactive hydrogen — tritium — to create a hydrogen bomb which exploded with a force more than 100 times greater than the Hiroshima bomb.

In the early 1950s, the Savannah River Plant was constructed and operated by DuPont to manufacture tritium and plutonium for nuclear warheads. The vast nuclear factory complexes were built in South Carolina on the Savannah River, bordering Georgia.

The plutonium manufactured at Savannah River Plant was shipped to Rocky Flats near Denver, Colorado, where it was alloyed and machined into

triggers for nuclear weapons. Rocky Flats has been called the worst-contaminated site in the Department of Energy complex. Enough plutonium to make several bombs has been lost in the pipes and corners of the plant and in the surrounding countryside. The U.S. has made 200,000 pounds of plutonium. (One pound of plutonium, if equally distributed to the lungs is enough to cause cancer in every human on earth.)

From Rocky Flats the triggers were sent to Pantex, Texas, to be assembled into bombs which are then shipped to submarines and missile silos throughout the world.

The United States exploded 215 of these atom bombs in the Earth's atmosphere spreading poisonous fallout to every corner of the planet. Another 815 atom bombs were exploded underground in the Earth.

Besides the weapons which were exploded in tests and deployed to hold the whole world hostage, the legacy of Savannah River Plant (SRP) also includes tritium in Georgia well water and 38,000,000 gallons of high-level liquid nuclear waste. This liquid nitric acid radioactive waste has been stored in 49 underground steel tanks for the last 50 years. Two tanks have been emptied and closed since 1996.

In 1990, Westinghouse took over operating SRP and changed the name to Savannah River Site (SRS). Primary nuclear weapons production ceased and environmental clean-up and waste management briefly became the site's mission. However, commitment of resources to that worthy goal have steadily plummeted in the decade that followed.

PLUTONIUM AT THE CROSSROADS

In the mid-'90s, the Federal government and the nuclear industry dusted off an old scheme to avoid nuclear clean-up — to combine military and commercial applications of nuclear power by converting useless weapons-grade plutonium into an exotic nuclear reactor fuel. This scheme would not only breach the wall between the so-called peaceful atom and its

destructive military use — it would amount to a very costly hand-out from taxpayers to the declining nuclear power industry.

GANE is currently engaged with the U.S. Nuclear Regulatory Commission (NRC) legally opposing the construction of this mixed plutonium and uranium oxides (MOX) fuel factory, yet another mammoth, polluting factory proposed for the old bomb plant on the Savannah River. See *MOX Intervention Report on page 5*.

Because plutonium can be easily handled and made into a devastating weapon, the highest level of security must be given to it. It is desirable to render plutonium useless for weapons and MOX purports to that lofty goal. But while generating tens of thousands of gallons of new nitric acid radioactive wastes every year for 20 years — MOX would also create a plutonium economy and increase security risks.

Environmentalists are advocating immobilization as an alternative to MOX. This would assist environmental clean-up by solidifying existing hot liquid wastes into a highly radioactive, 5,000-pound glass matrix that secures the plutonium from theft or use. Immobilization, the most straightforward option for safeguarding plutonium was recently cancelled. The 6.4 tons of left-over plutonium from making triggers at Rocky Flats that were scheduled for immobilization were dumped on the MOX program at SRS. The White House decision to cancel immobilization and “fast-track” shipments from Colorado incensed the State of South Carolina which sued DOE to stop the shipments. It has also deepened the swamp of unresolved details about MOX, sending the designers back to rework the massive plant proposal.

In the meanwhile, DOE has undertaken an Environmental Impact Statement on plutonium trigger manufacture focusing on SRS and Oak Ridge in eastern Tennessee. Driven by an unsafe political agenda of the Bush administration, plutonium is rumored to be rumbling down

continued on next page

SEEDS of PEACE



NAGASAKI OBSERVANCE AUGUST 9

GANE and the Atlanta Chapter of Physicians for Social Responsibility hosted a gathering to remember the victims of the cities of Nagasaki and Hiroshima who died under the mushroom cloud in August 1945.

Around forty people assembled in the rose garden of the Carter Center on a beautiful summer evening to share information and ideas, songs and inspiration with which to face the atomic age and its legacy of radioactive contamination. As a brilliant sun sank in clear blue skies filled with calling birds and billowing clouds, the group discussed the grievous situation at Savannah River Site (SRS) and strategies for stopping White House plans to start making nuclear weapons again.

The Carter Center seemed a suitable site to gather as it was 25 years ago that Jimmy Carter's actions as Georgia governor and president brought efforts to establish a commercial plutonium industry at SRS to a standstill. We talked about plutonium shipments rolling to SRS and the need for mindful handling of the plutonium as a waste product. We sang together, “What a Wonderful World,” and quietly dispersed, with paper cranes and sunflower seeds to continue to sow peace through individual actions.

SUGGESTED ACTION

An Urgent Call: End the Nuclear Danger

seeks 1 million signatures by June 2004

for the abolition of nuclear weapons

www.urgentcall.org

NAGASAKI, PLUTONIUM & THE SOUTH

continued from previous page

the highway from Colorado to South Carolina at present. Hundreds of secret shipments are planned. See story on back cover.

Activists are increasingly suspicious that the real agenda for bringing half the national inventory of plutonium to SRS is new bomb production. Immobilization and MOX may be mere ruses to offset public aversion to the atom bomb which was the instant, and still prevalent, reaction of people to the hellish weapons

declared illegal by the International Court of Justice in 1996.

GANE is working hard to ensure that a MOX factory will not be built. Instead we promote plutonium immobilization as the honorable, environmentally sound mission of peace. By choosing immobilization over MOX we will not only accomplish the urgent goal to safeguard plutonium from use in nuclear weapons, but we will successfully stabilize the liquid high-level radioactive waste at SRS. Immobilization will provide needed employment for the region and protect precious water resources from further contamination from SRS.

— Glenn Carroll

Glenn is project coordinator for GANE's legal intervention to stop construction of a plutonium fuel (mixed-oxide, MOX) factory at Savannah River Site.

WRITE, CALL OR E-MAIL the governors of South Carolina and/or Georgia and encourage them to look into the promising immobilization option for plutonium stocks which are presently being shipped to Savannah River Site for storage.

Governor Roy Barnes
State Capitol
Atlanta, GA 30334
404-656-1776

To e-mail Governor Barnes go to:
[www.ganet.org/governor/
contact_form.html](http://www.ganet.org/governor/contact_form.html)

Governor Jim Hodges
Office of the Governor
P.O. Box 11829
Columbia, SC 29211
803-734-9400
governor@govoepp.state.sc.us

FOR THE DEAD OF AUGUST

Let us forge our language
for the dead of August.

No matter how much I speak of "my" details of that day,
it is impossible to speak of Hiroshima.

It is impossible to even talk about the meaning
of a child who burned to death.

Let the dead talk.

Dead,

you must be able to see our lives
better from your side.

Although the chagrin of the dead was carbonized
and remains black and frozen,
the memories of survivors emit a rotten smell
and cannot tell the truth about that day.

The peace writer J. Gartunk says,

*Hiroshima and Nagasaki were talked about
too much, like an excessive export.*

Hiroshima and Nagasaki were talked about too much,
were worn out and became far distanced from the truth.

Let us forge our language
for the dead of August.

The publishing code of the occupation forces
became a myth,

our language corroded and rusty
with greedy appetites and overtalking.

Let us polish our rasping language and
thrust the anger of the dead
before the ones who manipulate nuclear power.

Hiroshima did not begin the morning of August 6.
It began with the first charge of the Japanese army in Liuyang Lake.
We received the bomb
as the citizens of the army capital, Hiroshima.

Let us remember

Hiroshima exists not only in Hiroshima

but all over the earth.

While the ashes of death swirled the sky,
water, milk, and vegetables were polluted, and
humans became sick
with radioactivity;
don't talk only about "my" details of that day.

Let us freeze the world for a moment

with well-honed, polished language

that pierces the past, present, and future.

Let us make the ones who manipulate nuclear power
turn pallid and halt.

The first time was a mistake,

the second time a betrayal.

Let us not forget our oath to the dead.

— Kurihara Sadako

Kurihara Sadako, *For the Dead of August* in *White Flash Black Rain*.

Edited and translated by Lequita Vance-Watkins and Aratani Mariko (Minneapolis: Milkweed Editions, 1995).

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MOX

INTERVENTION REPORT

With the January decision to swamp the MOX program with 6.4 tons of impure plutonium originally scheduled for immobilization, the White House effectively set MOX back a year from its original, fast-track schedule.

GANE's legal intervention opposing U.S. Nuclear Regulatory Commission authorization to construct a MOX factory at Savannah River Site was already in full gear at that point. We had achieved standing and had nine contentions (dealing with issues ranging from plutonium accounting and nuclear security to nuclear waste and public radiation doses) accepted for public hearing. Duke Cogema Stone & Webster (DCS), the applicant to the NRC, was sent back to the drawing board to recreate the factory design to accommodate 25 percent more plutonium and to develop adequate purification processes for the "junk" plutonium.

At the same time, DCS announced that it would jointly design a waste system with Department of Energy (DOE) for the tens of thousands of gallons of radioactively contaminated nitric acids which will result annually from MOX production. This was in direct response to GANE's contention that the National Environmental Policy Act requires submission of a full plan for dealing with MOX project wastes. On September 11, we filed several new contentions about the proposed waste facility including the potential for explosion of organic matter, called red oil, that builds up in the nitric acid waste. Another concern raised by GANE is that DOE has not done its part to commit to the waste program and there are glaring questions about whether the Waste Isolation Pilot Project (WIPP) will accept the MOX waste as the plan would require.

Although GANE wanted to put discovery for our case on hold until DCS resubmits the Construction Authorization Request and the waste plan in October, we were forced to spend much of the summer developing questions — "interrogatories" — to put to DCS and then answer their interrogatories.

Concurrent with this strenuous task, DCS sought to settle one of GANE's fun-

tives sought to find out what the application process for receiving a security clearance might be. Our inquiry led us squarely into the unprecedented nature of the plutonium fuel venture. It is not clear which agency, the Department of Energy (DOE), which is contracting with DCS for MOX, or the NRC which is charged with licensing and regulating the DOE activity, should process the clearance

application. This question has been sent up to the Commission level for review.

Security is the stated premise for the MOX program, and yet, the Federal agencies involved, DOE and NRC have not even drafted an agreement for how they will deal with regulatory overlaps and regulatory gaps in the MOX program.

Our experts, physicist Edwin Lyman of the Nuclear Control Institute and seismologist Peter Burkholder from Boulder, Colorado, made great personal sacrifices to work with GANE's legal adviser Diane Curran to fulfill

the rigorous requirements of discovery. These professionals have been quite generous in their dealings with GANE and we owe them a huge debt of gratitude.

PUBLIC TOUR OF SRS

GANE organized a tour of SRS on August 6, Hiroshima Day. With only three days notice from Westinghouse, primary contractor at SRS, 30 activists, local citizens and reporters signed up for a rare (since 9/11) public tour. Two days before the tour DOE became unhappy with the agenda and by the time the group assembled for the tour, the National Nuclear Security Administration had become involved and our six hour tour with lunch had been slashed to two



GANE organized a tour of Savannah River Site on August 6, the anniversary of the Hiroshima bombing. From left: William Hooker, Judy Tighe, Janet Schlaefer, Bobbie Paul, Rev. Edward Brown, Glenn Schlaefer, Glenn Carroll and Tom Clements. Photo courtesy Westinghouse Savannah River (primary Department of Energy contractor at SRS).

damental contentions, that control and accounting features for safeguarding plutonium must be incorporated into the facility design at the earliest moment. Indeed, safeguarding plutonium is the sole stated mission of the MOX facility and cannot be pasted on to the infrastructure as an afterthought. Although we were not able to settle, among other reasons, because we could not insure NRC review of the Materials Control and Accounting features DCS proffered, we now know that the DCS engineers are considering Materials Control and Accounting at the design stage — a clear positive effect that GANE has had on the MOX program.

In anticipation of the sensitive nature of plutonium accounting systems that MOX would require, GANE representa-

continued on next page

MOX INTERVENTION REPORT

continued from previous page

and a half hours. The tour was pale compared to last year's tour with one exception. After brief moments at the MOX site (apparently unchanged since last year) and a poor viewing of the "M" Area tank farm, we spent a considerable amount of time at the Defense Waste Processing Facility which will play an integral role in a plutonium immobilization program. This factory which turns waste to glass has long been celebrated as one of DOE's few great success stories

and it was quite impressive to view the gigantic, precision machinery which handles some of the most dangerous substances on earth.

The activists and reporters asked probing questions which extended the tour to its original six-hour length — only we didn't break for lunch in the impromptu version! We returned to the SRS Visitor's Center, hungrier and hopefully wiser, to the disappointing news that Governor Hodges' legal effort to compel DOE to perform an environmental impact

statement concerning Rocky Flats' junk plutonium had not fared well in appeals court that day.

WHAT'S NEXT

GANE's MOX intervention will swing back into full gear following resubmission of the Construction Authorization Request in October. We will have 30 days to identify any new issues that we may need to raise and to file new contentions on the issues. In the meanwhile, we must identify a seismologist and a nuclear waste expert for another round of discovery and interrogatories in December.

While GANE has been keeping a tight focus on the NRC licensing process, other significant campaigns are also shaping the climate surrounding MOX, most notably the State of South Carolina's lawsuit against DOE and Greenpeace International's pursuit of plutonium on the high seas. Japan's MOX program is collapsing in chronic corporate scandal and Britain's program is being bailed out of bankruptcy by the government. The U.S. MOX program is increasingly referred to as uncertain, and plutonium increasingly referred to as "waste." Small immobilization plans have crept quietly back onto the agenda.

Your efforts to educate yourself and others, your phone calls and letters to elected officials and business leaders, and your generous contributions to the MOX legal intervention are having a measurable impact. MOX was stopped here in the Southeast 25 years ago ... MOX is an idea without merit and hopefully will meet its final demise soon.

— Glenn Carroll

PLUTONIUM FACTS

Year plutonium was discovered by Glenn Seaborg and others
1941

Minimum amount of plutonium required for bomb
1 kilogram (2.2 pounds)

Amount of plutonium used in Nagasaki bomb
6.5 kilograms

Average amount of plutonium used in modern atom bomb
3 kilograms

Estimated amount of U.S. weapons-grade plutonium
85,000 kilograms (93.5 tons)

Hazards associated with plutonium
Radiation, fire, inhalation, ingestion, criticality, reactivity, decay

Length of time that plutonium 239 (weapons-grade) remains hazardous
240,000 years (Ten 24,000-year half-lives)

Form of plutonium most hazardous to life
Plutonium oxide powder

What happens to plutonium metal when exposed to air
Gradually turns to plutonium oxide powder

Lethal amount of plutonium oxide powder (inhaled)
2000 micrograms

Lethal amount of plutonium oxide powder (ingested)
500,000 micrograms

Amount of sugar substitute in average 1 gram package
1,000,000 micrograms¹

Amount of plutonium oxide powder the U.S. Department of Energy plans to transport by truck from Rocky Flats in Colorado to Savannah River Site in South Carolina
3000 kilograms (3.3 tons or 3 trillion micrograms)

EXCERPTED FROM **STOP PLUTONIUM FUEL: PLUTONIUM INDEX**, COMPILED BY DON MONIAK
BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE, WWW.BREDL.ORG

¹ Sutcliffe, W.G. et al, Lawrence Livermore National Laboratory. A Perspective on the Dangers of Plutonium. April 15, 1995 and Haschke, John M. et al. Los Alamos National Laboratory. Plutonium Storage. 1998.

SUPPORT GANE'S LEGAL INTERVENTION

Please send a contribution to
GANE's NIX MOX Fund today.
Use the form and envelope
included in the newsletter
or send to:

GANE
P.O. Box 8574
Atlanta, GA 31106

Thanks, and "no nukes y'all!"

MOX TEST FACES MAJOR HURDLES

by Tom Clements

Greenpeace International has learned that the U.S. Department of Energy (DOE) has plans to ship 150 kilograms (330 pounds) of weapons-grade plutonium by truck across the southeast and then by ship to Europe for processing into experimental plutonium fuel (MOX). The fabricated fuel would then be shipped back to the U.S. for testing in a Duke Power reactor. The planned shipment and its associated environmental and proliferation risks underscore the dangers associated with the plan which DOE is pursuing to dispose of weapons-grade plutonium.

DOE plans to purify the plutonium at the Los Alamos National Laboratory in New Mexico, transport the deadly material to an unnamed east coast seaport in one of its so-called "Safe Secure Transports" (SSTs) and then ship the plutonium via the Atlantic Ocean to either Belgium or France. Most likely, an armed escort would be required to accompany any plutonium transport vessel, which will elevate the concern and controversy around the shipment. The material involved would be enough for at least 30 nuclear weapons.

The proposal to fabricate the fuel in Europe, the so-called "Eurofab Alternative," is being put forward by DOE as the "preferred alternative" for testing plutonium MOX fuel as part of the plutonium disposition program. Greenpeace asks the U.S. to abandon the risky and controversial proposal to ship weapons-grade plutonium on the high seas for safety and security reasons. As plutonium can be used in nuclear weapons and in dirty bombs, its transport should be minimized and not placed in jeopardy during a long trans-Atlantic voyage. Immobilization of plutonium in existing high-level waste at the Savannah River Site would avoid this risky shipment. The MOX program, on the other hand, maximizes transport, handling and processing of plutonium.

DOE intends to soon issue a "Notice of Intent" to prepare a "Supplement

Environmental Impact Statement" (SEIS) as an addition to the Surplus Plutonium Disposition EIS in order to evaluate the options to manufacture the MOX "lead test assemblies" (LTAs). Regulations require full public participation and comment in an SEIS but DOE is apparently seeking the agreement of France and Belgium to participate in the program before issuing the Notice of Intent, let alone the SEIS.

In Europe, the plutonium would be fabricated into four MOX LTAs, which

Consideration of the Belgian facility for this plutonium [MOX] mission has caused a furor in the Belgian government, which was recently forced to postpone a decision on whether to participate in the program because of the controversy.

would be shipped back to the U.S., also under armed escort, for testing in a reactor owned by the Charlotte-based Duke Power Company. Licenses from the U.S. Nuclear Regulatory Commission are a prerequisite for moving the plutonium between the U.S. and Europe and provide the opportunity for citizen legal intervention against such licenses.

Additionally, Duke will have to obtain an amendment to their nuclear reactor operating license from the NRC in order to test the MOX fuel.

Testing of the experimental MOX fuel is required before full-scale use in four Duke reactors can be considered for licensing. The MOX facilities in Europe under consideration to convert weapons plutonium to test fuel assemblies are the Belgonucleaire's "PO" facility at Dessel, Belgium and Cogema's Cadarache MOX plant in southern France. As the Cadarache facility has no license to handle weapons-grade plutonium and is scheduled to close early next year, it is more likely that the Belgian facility is being eyed by DOE. Consideration of the Belgian facility for this plutonium mission has caused a furor in the Belgian government, which was recently forced

to postpone a decision on whether to participate in the program because of the controversy.

A second option for fabrication of the "lead test assemblies" is fabrication at the yet-to-be-constructed MOX plant, which DOE is pursuing at the Savannah River Site in South Carolina. DOE plans to use that facility to dispose of 34 metric tonnes (MT) of weapons-grade plutonium in the MOX program, though it admitted in a February 15 report to Congress that the MOX option was more expensive than immobilizing the 34 MT as waste. On July 30, at a presentation to the National Academy of Sciences, DOE again confirmed that immobilization was cheaper and that DOE plans to waste a staggering \$1.7 billion on construction of the MOX plant at SRS through Fiscal Year 2008.

Greenpeace continues to support immobilization as the cheapest, safest and least proliferation-prone option in both the U.S. and Russia. Greenpeace believes immobilization remains politically and technically viable despite DOE's official termination of the program.

LTA fabrication in the SRS MOX factory could not begin until the plant is finished later in the decade. The plant would not be allowed to go to full-scale commercial fabrication until the four-year LTA testing program was finished and the quality of the fuel verified. DOE states that keeping the MOX plant on standby for years to complete the testing program is a "sub-optimal" use of the facility.

The weapons-grade plutonium cannot be flown to Europe as it is illegal to fly plutonium over the U.S. No container is certified to survive an air crash. It is unknown at what point DOE would hand over control or ownership of the plutonium to private consortium Duke Cogema Stone & Webster, and what laws govern such a sale or transfer.

It is believed that the shipment of the plutonium could occur as soon as summer 2003 if the EIS is finished, an export license granted, and Belgium agrees to the scheme.

continued on next page

MOX TEST FACES MAJOR HURDLES

continued from previous page

In Belgium, the issue of participation in the LTA program heated up after it was learned that Prime Minister Verhofsadt, with the Liberal party, was attempting to win approval for the program without discussing the idea with his coalition partners, the Socialists and Greens. Any decision on the program is now postponed until things cool down. However, the parties are sure to continue internal discussions about the wisdom of establishing a plutonium infrastructure in both the U.S. and Russia.

Belgian politicians are aware that the Russian plutonium disposition program is theoretically to be parallel with the program in Russia, though no evidence exists that Russia is moving forward with a program of its own. Of particular concern in Belgium is that some in the Russian Ministry of Atomic Energy (Minatom) are pushing for Western funds to construct a new plutonium breeder reactor, the BN-800, which would be capable of breeding, or producing,

FOR FURTHER INFORMATION:

- DOE's Feb. 15, 2002 cost report, which DOE refuses to post publicly and which reveals plutonium immobilization to be the cheapest option, can be found on the Nuclear Control Institute's web site at: <http://www.nci.org/pdf/doe-pu-2152002.pdf>
- For more information on NRC's involvement in licensing the MOX Fuel Fabrication Facility (MFFF) at SRS and for more information on the LTA program, go to the NRC web site at: <http://www.nrc.gov/materials/fuel-cycle-fac/MOX/licensing.html>
- For background LTA information and documents obtained under Freedom of Information Act, see Blue Ridge Environmental Defense League web site: <http://www.bredl.org>

weapons-grade plutonium and is thus of proliferation concern. The Belgians were also interested to know how much of the 34 MT of plutonium would actually be linked to any future disarmament and were disappointed to learn that all of the material is likely already out of weapons and not associated with disarmament.

The British government considered providing weapons-grade plutonium for the LTA manufacture but confirmed on July 16, in a response to a question from a Member of Parliament, that it had dropped out of the program.

You are urged to contact Ed Siskin,

Director of DOE's Office of Fissile Material Disposition and register your opposition to misguided plans to ship weapons-grade plutonium to Europe for processing: edward.siskin@hq.doe.gov or at DOE, National Nuclear Security Administration, Washington, DC 20585. Given that his office abhors participatory democracy is all the more reason to tell him what you think! — Tom Clements

GREENPEACE INTERNATIONAL
NUCLEAR CAMPAIGN
tel. 301-270-0192
tom.clements@wdc.greenpeace.org

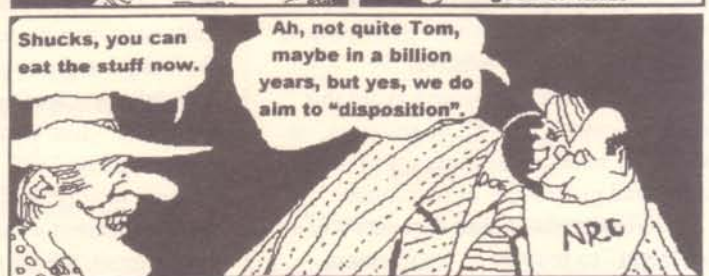
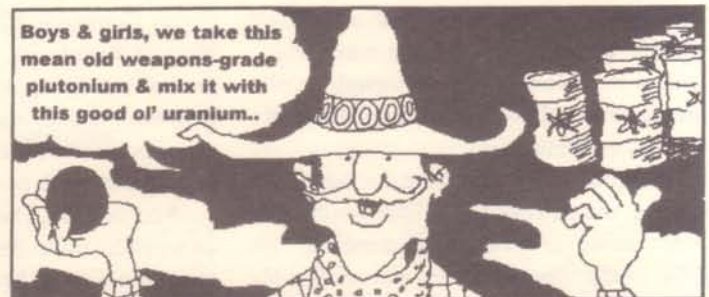
Tom Mix Mox

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Tom Mix Mox

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SOUTHERN COMPANY'S PRIVATE DUMP

The utility consortium known as Private Fuel Storage (PFS) of which Southern Company is a leading member continues to quietly pursue a 40-year license to build and operate an above-ground nuclear dump for high-level irradiated fuel from nuclear power plants. The for-profit dump in Utah would lease space to utilities as an alternative to building new storage space on reactor sites. Although PFS' plan would involve transportation risks comparable to the Yucca controversy and the plan has visible flaws, it has received relatively little media attention. PFS' plan is not without resistance however.

The consortium entered into secret arrangements with the former chief of the tiny band of Goshute Indians in the Skull Valley of Utah. The tribe subsequently held elections which ousted dump promoter Leon Bear, replacing him with Melinda Moon and Sammy Blackbear who say a majority of tribal members oppose the dump. The band is now embroiled with the Bureau of Indian Affairs which refuses to acknowledge the newly elected representatives.

Public hearings on many contentious issues surrounding the dump were conducted this summer by the Nuclear Regulatory Commission. A decision on whether to license the dump may be expected near the end of the year. PFS Seeks a 20-year license with a 20-year renewal option. Seismic and security issues were raised along with U.S. Air Force concerns that the proximity of an air force testing range adjacent to the dump creates likelihood of a plane crashing into the above-ground dump.

Meanwhile a Federal court heard arguments brought by PFS whether measures taken by the State of Utah were constitutional. Utah was ordered to overturn state laws barring high-level nuclear waste in the state and imposing heavy taxes on anyone doing business with the radioactive facility. Governor Mike Leavitt, who began opposing the dump in 1997 believes that Congress, not the Nuclear Regulatory Commission, is



required by law to site a nuclear dump and a higher court will confirm that intent of the national Nuclear Waste Policy Act.

"I have one focus these days — to stop the storage facility from being licensed," says Governor Leavitt. "We

don't produce nuclear waste, and we refuse to store it for those who do."

A bill is moving through the U.S. House to designate as wilderness land PFS seeks for rail access to the dump. This would effectively block PFS' access by rail if passed. — Glenn Carroll

CLELAND, SENATE VOTE AGAINST NEVADA AND SOUND SCIENCE

On July 9, 20 years of fierce controversy over siting the nation's high-level nuclear waste repository crossed a political threshold when the U.S. Senate voted 60-39 to accept the Yucca Mountain site near Las Vegas, Nevada.

Citizen input was enormous and effective in the months leading up to the historic vote. An increasing number of senators were able to resist the false allure of this fatally flawed nuclear waste plan and vote against it.

Atlanta Mayor Shirley Franklin was swift and strong in her statement against transporting high-level radioactive waste

through Atlanta, and supported a national mayors' resolution calling for extensive emergency training measures and support to communities along transport routes.

Georgia rock superstars The B-52s took the issue on the road with them and held a press conference with local organizations that received wide coverage. The mock nuclear waste cask, illustrating the prospects of thousands of shipments from east to west, logged many miles on Georgia roads and was even stuck in Atlanta rush hour traffic!

continued on next page

NUCLEAR WASTE DUMP UPDATES

continued from previous page

It came down to the wire on the day of the vote and neither side dared to call the outcome since many senators remained undecided until the last minute. Both Utah senators were expected to vote against Yucca since Utah is facing Southern Company's unsafe, unfair dump siting, but they emerged from a closed door meeting with fellow Republican George Bush and voted for the dump. Georgia activists were disappointed that Zell Miller and Max Cleland voted for the dump.

Particularly bitter was Cleland's choice, since in multiple citizen meetings his staff showed an educated awareness of the myriad unresolved questions about the Yucca site. Asking what could be done about the waste if it didn't go to Yucca, citizens were ready with information about the H.O.S.S. proposal (opposite page). Hardened On-Site Storage (H.O.S.S.) would increase security at existing nuclear waste storage sites — every reactor in the U.S. — simultaneous with a scientifically based inquiry into long-term nuclear waste storage plans. Even when presented with analysis showing that the nuclear waste mounting up at operating reactors is projected to

exceed the capacity of Yucca Mountain — Cleland still voted for corporate rather than public interests.

On July 23, Bush signed the dump legislation and thus ended the legislative and executive branches' responsibility for safeguarding the high-level radioactive nuclear power wastes of the Atomic Age.

So, the heaviest fighting to prevent this bad proposal to dump 77,000 tons of high-level nuclear waste in a precious desert water source located in one of the most seismically active areas of the continent, now moves to the judicial branch of government. In the courts, the dump proposal faces legal challenges to its license application — over water rights, to its compliance with NEPA, to EPA radiation levels, and a lawsuit that defends Nevada's constitutional rights. Originally filed in 1987, a Federal court rejected Nevada's states' rights concerns as premature since DOE was only studying, and had not yet recommended, the Yucca Mountain site. Now that Bush has signed off on the



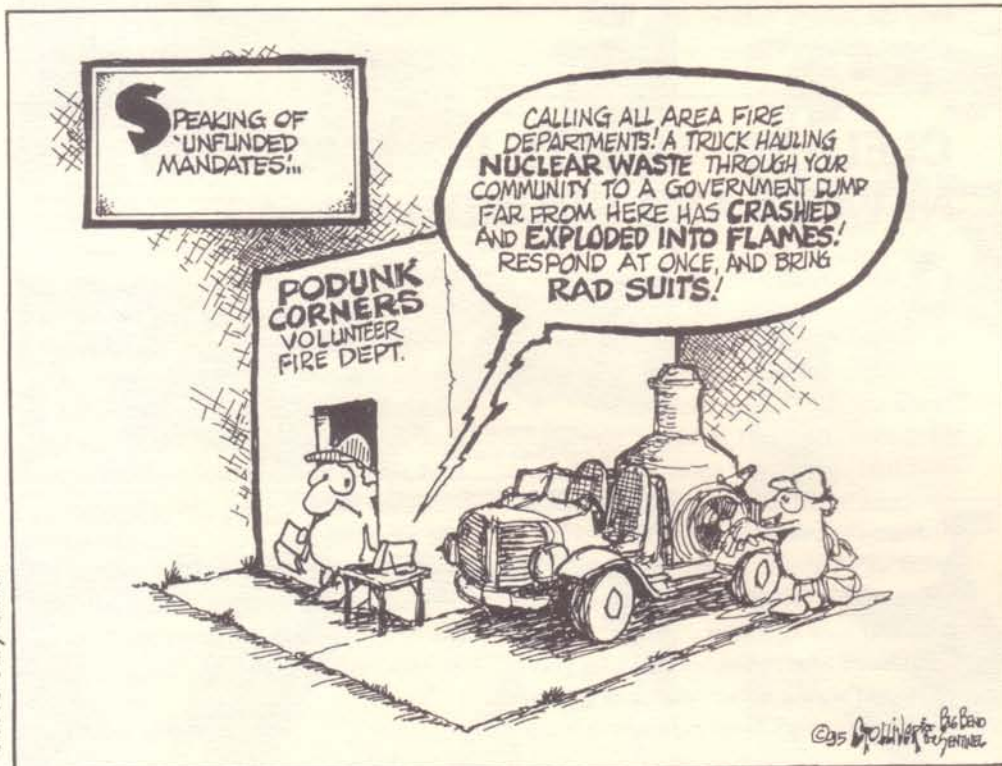
Georgia rockers Kate Pierson, left, and Sara Lee, right, of The B-52s met with GANE's Glenn Carroll prior to the press conference which called for Senators Max Cleland and Zell Miller to vote against dumping the nation's high-level nuclear waste on Yucca Mountain in Nevada. The B-52s raised the nuclear waste issue at its concerts this summer. Photo by Katie Toney.

Yucca proposal, the lawsuit is ripe for a hearing. Nevada's claim that its constitutionally protected rights have been violated is based in part on the fact that Nevada, which has no nuclear power plants, is being forced to accept the brunt of the nation's nuclear legacy — long-lived highly radioactive waste.

Meanwhile, it is apparent that the legislative branch is not done with the Yucca issue. The Senate Appropriations Committee only approved about 60 percent of the figure requested for Yucca in this year's budget.

The Senate subcommittee is headed by Nevada Senator Harry Reid.

— Glenn Carroll



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HELP STOP THESE BAD NUCLEAR WASTE SCHEMES!

Clip and send a copy of the H.O.S.S. plan to:

ALLEN FRANKLIN, CEO
Southern Company
270 Peachtree Street NW
Atlanta, GA 30303
404-506-5000
FAX 404-506-0670

HELP STOP BAD NUCLEAR WASTE SCHEMES!

If we don't approve Yucca Mountain, then what do we do with the wastes?

H.O.S.S. it!

Hardened On-Site Storage Nuclear Waste Management Plan

It has been pointed out that even if no more high-level radioactive wastes were produced, we would still have to do something with the wastes we have, until such time as a final repository were opened. It's also obvious since 9/11 that the current safety and security practices employed to manage high-level radioactive wastes at reactors are inadequate and unacceptable. "What is the alternative?" environmentalists are asked.

Alternatives exist — "HOSS" is one. Many feel it's better to be deliberate and not err, than implement an obviously flawed plan just to say "we had to do 'something.'" With high-level radioactive wastes, if we do "something," it must be the "right" thing, because we won't get a second chance to be wrong. D.C.-based Institute for Energy and Environmental Research outlines a program to manage nuclear wastes better in the short-term while looking for a genuine long-term solution.

IEER advocates the following program be carried out by an institution that does not have the conflict of interest that the U.S. Department of Energy (DOE) does, and under more stringent public health and environmental protection standards than those currently in effect.

INTERIM MANAGEMENT

Interim Hardened On-Site Storage (HOSS) should be used for all spent fuel that can be moved out of pools. Pool storage should be minimized. HOSS would be different than spent fuel pools and dry casks now used. No new above-ground dry storage of the present varieties should be licensed. Current dry storage should be converted to HOSS. The Federal government should pay for HOSS at closed power plant sites since it has defaulted on its obligation to begin taking the waste on January 31, 1998, and has large amounts of ratepayer money dedicated to waste management that it has not spent.

GOALS

Hardened On-Site Storage should be able to withstand most terrorist attacks without significant off-site releases. A second level goal is to prevent catastrophic off-site releases in case of even severe attacks. There could be defense-in-depth as part of the system. The technology to accomplish HOSS is available.

INTERIM HARDENED ON-SITE STORAGE

HOSS should meet the following criteria:

1. It should not result in catastrophic releases. It should resist almost all types of attacks. The amount of releases projected in even severe attacks should be small enough that the storage system would be unattractive as a terrorist target.
2. It should be able to withstand a direct hit by a large commercial airliner full of fuel or anti-tank weapons without catastrophic offsite releases.
3. The individual canister locations should not be easily detectable from offsite.

On-site storage would be needed for around 50 to 60 years — not much different from what is projected to occur at present.

LONG-TERM MANAGEMENT

The long-term repository plan should proceed as follows with 10 years of the following scientific and engineering work:

1. Research on natural geologic conditions that retard the movement of radionuclides for long periods.
2. Development of materials that mimic these natural geologic conditions ("Natural analog" materials).
3. Research on geologic environment types that would match the characteristics of these natural analogs.
4. Intensified basic scientific research on the properties of the most important radionuclides under a variety of laboratory conditions.

After this initial work, the process of selecting two or three repository and natural analog types would be initiated for concentrated work (10 years).

Then site selection (10 years).

If the process is sound, disposal could in principle happen in the 20 years to follow. The total time for complete disposal of fuel from existing power plants (40-year license) would be roughly 50 years, possibly 60.

If the power plants are closed down the overall timetable would not be longer than envisioned for Yucca Mountain now.

For more information:

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tel. 1-301-270-5500 | fax 1-301-270-3029 | ieer@ieer.org | www.ieer.org

Mail to: Allen Franklin, CEO, Southern Company, 270 Peachtree Street NW, Atlanta, GA 30303 or FAX: 404-506-0670 (be sure to include cover sheet)

Alice Stewart

OCTOBER 4, 1906 – JUNE 23, 2002

Born Alice Mary Naish in Sheffield, England to parents who were both physicians, Dr. Alice Stewart was a pioneer whose research into the dangers of X-rays and nuclear radiation would shake the scientific establishment. Through her tenacious investigations and demonstration of the connection between fetal X-rays and child cancers, she attract-



ed the enmity of the nuclear and health physics establishments – and the hostility of the British and American governments – by insisting that her studies showed that the adverse effects of exposure to low-level radiation were far more serious than had been officially accepted.

Graduating from Cambridge University, she was one of the first women to practice medicine at a time when society frowned upon professional

women. She also managed to raise a family while carving out a career that reached international stature. She accepted a position in the newly established department of social medicine at Oxford where she remained until she retired in 1974 at age 68. In 1986 the Swedish parliament awarded Stewart the Right Livelihood Award, the so-called “alternative Nobel prize.” Her findings on low-level radiation were regarded as so controversial that the British embassy refused to send a car to pick her up at the airport when she flew to Stockholm to receive the honor.

It was shortly after World War II when she became involved in the Oxford child cancer studies. Stewart showed a clear connection between leukemia before the age of 10 and the mother’s

exposure to x-rays during early pregnancy. Surviving stiff resistance, her findings led to a revolution in the previously indiscriminate use of X-rays.

With a grant of 1,000 pounds, she launched her landmark study of the causes of childhood cancer. Beginning from a hunch that mothers might remember something that the doctors had forgotten, she devised a questionnaire for women whose children had died of any form of cancer between 1953 and 1955. By the time a mere 35 questionnaires had been returned, the answer was clear: a single diagnostic X-ray, well within the exposure considered safe, was enough to almost double the risk of early cancer.

This news was a surprise even to Stewart and highly unwelcome in the scientific community. Enthusiasm for nuclear technology was at a high point in the 1950s, and radiography was used for everything from treating acne and menstrual disorders to ascertaining shoe fit. Britain and the U.S. were in full gear building nuclear weapons and promoting nuclear power and were unwilling to rec-

BREAST X-RAYS: Do Benefits Outweigh Risks?

by Molly Mechtenberg

Over the years the breast X-ray, or mammogram, has come to be considered the cornerstone in the fight against breast cancer. The American Cancer Society (ACS) and other high-profile cancer institutions have carried the motto: “There are no practical ways to prevent breast cancer — only early detection.” However, recently the assumption that breast X-rays actually save lives has been challenged and drawn into the public realm for debate.

The latest reappraisal began when two European researchers reviewed the long-term mammography trials upon which groups such as the National Cancer Institute have based their cancer screening recommendations. The authors concluded that the trials had fundamental flaws in conduct and analysis and therefore the results were worthless.

These findings were then backed up by the PDQ Screening and Prevention Editorial Board. This panel consists of experts from leading medical institutions and government agencies who update

scientific information and advise health professionals on cancer screening.

The debate over mammography currently appearing in the media has been going on for years. It arises from two factors. First, there is the current question about how many lives mammography actually saves. Second, the screening procedure brings its own health risks.

The biology of breast cancer is complex. It is often the case that a tumor grows so fast that a mammogram will not spot it until it has already spread and it’s too late for treatment. On the other extreme, 20 percent of the cases of breast cancer detected by mammograms will never spread, and women run the risk of getting unnecessary and dangerous treatment: radiation, chemotherapy and surgery. Additionally, mammograms miss some tumors. Past studies have found it reduces breast cancer mortality by 30 percent at the most, and this statistic is now in question.

Mammograms are X-rays that emit ionizing radiation. This type of radiation is the only cause of cancer acknowledged

by the American Cancer Society. Samuel Epstein, M.D., Professor of Environmental Medicine at the University of Illinois School of Public Health, writes, “there is clear evidence that the breast, particularly in premenopausal women, is highly sensitive to radiation, with estimates of increased risk of up to 1 percent for every Rad (radiation absorbed dose) unit of X-ray exposure. Even for low dosage exposure of two Rads or less, this exposure can add up quickly for women having an annual mammogram.”

Dr. Epstein says it is critical for women to know how many Rads they are receiving with their mammogram. As technology has advanced, exposures have decreased — today, a breast X-ray should emit about 0.4 Rads. This is a drastic improvement over early machines that emitted 10 Rads. It is also important to keep in mind that premenopausal women have about 40 times the sensitivity to radiation as postmenopausal women. Furthermore, one percent of women carry a gene that increases fourfold their risk of breast cancer from radiation. In light of

ognize that radiation is as dangerous as Stewart claimed.

She never again received a major grant in England.

Two decades later, in her 70s, she demanded a change in working practices when she published a study showing that workers at nuclear weapons plants are at greater health risk than international safety standards admitted. Working with Dr. Thomas Mancuso who was under contract to the U.S. Department of Energy (DOE) to review health data on Hanford workers who produced plutonium for the U.S. atom bomb, they didn't expect to turn up anything troubling since workers' exposure at the oldest and largest nuclear weapons facility in the world was well within the safety limits set by international guidelines.

But Stewart found the cancer risk to workers was about 20 times higher than was being claimed, a discovery that put them at odds with the multimillion-dollar Hiroshima and Nagasaki studies on which international safety guidelines were based.

Mancuso was fired by DOE which also attempted to seize the data, but the scientific team fled to England, ultimately to attract public attention and provoke congressional investigations in 1978 and 1979.

Following the meltdowns of Three Mile Island in 1979 and Chernobyl in 1986, Stewart testified as an expert witness many times against the siting of nuclear facilities and dumps and in compensation cases by veterans and downwinders. A champion to the anti-nuclear movement, she always maintained that she was a scientist and had no political agenda. Still, when she received a \$1.4 million grant in 1986 to study the effects of low-dose radiation, the grant came not from a government agency, but from activists who obtained the funds from a fine imposed upon Three Mile Island.

It took until 1992 for Stewart to receive data on nuclear workers through several Freedom of Information lawsuits and it was proclaimed a blow for scientific freedom on the front page of the *New York Times*.

"Truth is the daughter of time," she was fond of saying. "And it helps in this field to be long-lived." Dr. Alice Stewart lived long enough to see radiation science move in her direction, with each official estimate of radiation risk acknowledging greater danger than previous estimates admitted.

Her efforts helped to break DOE's stranglehold on radiation health research. She was satisfied to see DOE Secretary Hazel O'Leary open government records in 1993 which revealed the department's radiation experiments on humans during the Cold War, and then in 2000, to see Secretary Bill Richardson recommend compensation for nuclear workers suffering from cancers that were likely incurred on the job.

A biography of Dr. Alice Stewart, *The Woman Who Knew Too Much*, was published in England and America in 1999.

— Glenn Carroll

SOURCES: *The Guardian* and the *London Times*

all these facts, alternative detection methods such as Digital Infrared Imaging and thermography are on the rise and are worth investigating.

In the face of all this evidence, why do cancer institutions such as the National Cancer Institute recommend mammograms starting at age 40? The answer may lie in the fact that the cancer industry and mammography are big business.

Breast cancer rates have reached unprecedented levels in the U.S. and other industrialized countries. Fifty years ago the chance of getting breast cancer was 1-in-20, now it is 1-in-8. There is increasing and substantial evidence that this epidemic is directly related to industrial carcinogens in the air, water, workplace and consumer products. However, major cancer establishments have been fixated on "damage control" — diagnosis and treatment.

National Breast Cancer Awareness Month, every October, carries the motto, "Early detection is your best protection." The founder of National Breast Cancer Awareness Month is AstraZeneca Pharmaceuticals, which manufactures a controversial and widely prescribed

breast cancer drug, tamoxifen. AstraZeneca is also the fourth largest producer of pesticides in the U.S. Many pesticides are known to contain carcinogenic chemicals, which are linked to breast cancer. With AstraZeneca as a major source of funding, it is no surprise that cancer institutes are not spending time or money on cancer prevention, focusing instead on detection and treatment.

The mammography industry itself has direct ties to the major cancer establishments. Dr. Epstein writes, "The American Cancer Society has close connections to the mammography industry. Five radiologists have served as ACS presidents, and in its every move the ACS reflects the interests of major manufacturers of mammography machines and film including Siemens, DuPont, General Electric, Eastman Kodak, and Piker."

The debate over mammograms is far from over. The major cancer institutes are taking a strong stand in support of mammography. Many doctors will continue recommending mammograms until there is more evidence to advise otherwise. As the *New York Times* said editorially January 27, 2002, "Mammography has

been so strongly endorsed by the cancer establishment and has become such a significant source of revenue and patients for many hospitals and doctors that it may be difficult to excise without overwhelming evidence that it is dangerous."

However, many believe that the current debate over mammography ignores the real issue. In a letter to the *Times*, Jeanne Rizzo, director of the Breast Cancer Fund in San Francisco, writes, "There is no shortage of advice for women about things they can do in their personal lives to possibly reduce the risk ... get a mammogram, drink less alcohol, exercise more ... To keep women alive, we need to accept the mounting body of evidence linking breast cancer with exposure to synthetic chemicals ... It is time to act on this evidence and to eliminate these cancer-causing chemicals from our bodies and environment."

Reprinted from *The Pathfinder*, quarterly newsletter of Nukewatch, a project of The Progressive Foundation founded in 1979 by Samuel H. Day Jr.

Suggested subscription rate is \$25/year: Nukewatch, P.O. Box 649, Luck, WI 54853, 715-472-4185, www.nukewatch.com or www.no-nukes.org/nukewatch

PUTTING THE "NUCLEAR RENAISSANCE" ON ICE



In the midst of a presentation on the economics of future nuclear power plant construction at a September nuclear industry conference dubbed "Nuclear Renaissance," Greenpeace delivered a melting ice sculpture of a nuclear reactor. "This ice sculpture is the only nuclear power plant ordered and subsequently built in the last 30 years," Greenpeace's Jim Riccio told the mostly unamused gathering. Riccio said that Greenpeace is putting plans for any "nuclear renaissance" on ice. "Despite millions of dollars of government subsidies, nuclear power plants are still too expensive to build, too dangerous to operate and too vulnerable to potential terrorist attacks." He cited windmills and solar panels, which are not terrorist targets, as safer and less expensive ways to produce electricity.

Photo courtesy Greenpeace

Mordechai Vanunu Receives Sam Day Peacemaker Award

Mordechai Vanunu brought his camera to work in late 1985, shortly before leaving his eight-year stint as a technician at Israel's Dimona reactor which masks a nuclear weapons factory.

Acting on his conscience, he carefully took about 60 photos of the top-secret labs and unique production processes involved. When some of these photos were subsequently published in a *London Sunday Times*' exposé, they confirmed his eyewitness testimony about the extent of Israel's nuclear weapons program and revealed Israel to be one of the world's top nuclear powers. To this day, the Israeli government refuses international inspection of Dimona and continues to deny the existence of its nuclear arsenal.

Mordechai Vanunu was subsequently kidnapped and taken back to Israel where he was sentenced to 18 years in prison for treason. He has arguably paid the highest price of any living nuclear whistleblower, having already served 15 years of his sentence, most of it in solitary confinement, for notifying the world about Israel's nuclear weapons.

Vanunu was awarded the newly established Sam Day Memorial Peacemaker Award in May. The award is named in



Award artwork and lettering by Bonnie Ufer

honor of Sam Day, a founder of the anti-nuclear movement who worked for decades against nuclear secrecy as a journalist, activist, resister and political prisoner until his sudden death at his Wisconsin home in January 2001. Founder of Nukewatch and the U.S. Campaign to Free Mordechai Vanunu, Day also founded the Lakes and Prairies Life Community which sponsors the new Peacemaker award.

Ann Harris, a former employee of the Tennessee Valley Authority, spoke at the awards ceremony of the difficulties encountered by workers who dare to challenge the nuclear industry: harass-

ment by management; ostracism by co-workers; death threats; financial hardships; and even animosity from some in the anti-nuclear movement who distrust anyone associated with the nuclear industry.

Vera English whose lawsuit against her former employer, General Electric inspired formation of a national law protecting nuclear whistleblowers, was also in attendance.

The award was accepted on behalf of Vanunu by the Eoloffs, a couple who legally adopted Vanunu, disowned by

his natural parents, in 1997 hoping to have him transferred to a U.S. prison. The Eoloffs traveled to Israel to present the award to Vanunu. It is not known whether the prison has allowed Vanunu to claim the award or not.

— Glenn Carroll

VANUNU WELCOMES CORRESPONDENCE FROM SUPPORTERS. TO WRITE HIM:

Dr. Mordechai Vanunu
Ashkelon Prison
Ashkelon, Israel

Vanunu's photos of Dimona and story:
www.nonviolence.org/vanunu

Many thanks to these generous GANE supporters

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Help GANE meet the plutonium challenge facing the South.

GANE's legal intervention to stop construction of a plutonium fuel (MOX) factory at Savannah River Site gives the public its most effective voice in shaping plutonium policy in the new millennium. Making MOX from warhead plutonium poses an unacceptable threat to the environment of Georgia and South Carolina and an equally serious threat to global efforts to manage and reduce the excessive stockpile of nuclear weapons. As GANE faces the Department of Energy, Nuclear Regulatory Commission, and Duke Cogema Stone & Webster in this David meets Goliath match, we urgently need your support.

GANE's efforts have garnered a national platform where the life-threatening issues of plutonium security, nuclear terrorism, seismic activity and nuclear waste will be scrutinized. We need your help to pay for legal research, expert testimony, long-distance phone calls, copying costs and postage.

Your donation at this time, however great or small, will help to make the Southeast, and the world, safer from plutonium.

Please give generously to support GANE's important work at this critical time.

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Plutonium Trucks Start Rolling Across Country

On June 14, the State of South Carolina and Governor Jim Hodges stood up against federal plans to transport 6.4 tons of impure plutonium from the Rocky Flats atom bomb factory in Colorado to the defunct K reactor of the Savannah River Nuclear Weapons Site (SRS). Calling for further study by the U.S. Department of Energy (DOE) as required by the National Environmental Policy Act (NEPA), the State of South Carolina presented its case in the 11th Circuit of Federal Court in Aiken, South Carolina.

Scores of activists, reporters and interested community members flocked to the small courthouse to watch one of the poorest states in the nation exercise its judicial rights to influence elaborate federal government plans, or rather the lack of plans, for much of the nation's weapons-grade plutonium.

The state government of South Carolina has largely supported the MOX proposal to manufacture experimental nuclear reactor fuel from the bomb plutonium but began to express concerns when a recent White House decision axed immobilization. Advocated by many environmentalists, the plan was to immobilize the Rocky Flats plutonium in a glass matrix made from radioactive waste currently in liquid form at SRS. The liquid wastes, leftover from manufacturing plutonium at the height of the Cold War, have languished for 50 years in steel tanks and are beginning to leak into a vital groundwater source.

In the same move which cancelled immobilization, the White House burdened the increasingly shaky MOX program with the 6.4 tons of junk plutonium scheduled for immobilization. The Construction Authorization Request for the MOX factory (which GANE is legally opposing, *see article on page 5*) went

triggers for nuclear bombs. The Rocky Flats plant has been called the worst contaminated site in DOE's vast complex and has become a reelection issue for Republican senator Wayne Allard.

A hearing to decide the injunction was scheduled prior to DOE shipment and the impressively informed Judge Cameron

Currie appeared to read from a previously drafted decision when she denied not only the Governor's request for injunction but made an "instant" decision denying the NEPA suit.

Several days later an appeals court upheld Judge Currie's decision adding a warning for Governor Hodges that use of state troopers to prevent shipments from entering South Carolina would violate Federal laws which he is sworn to uphold.

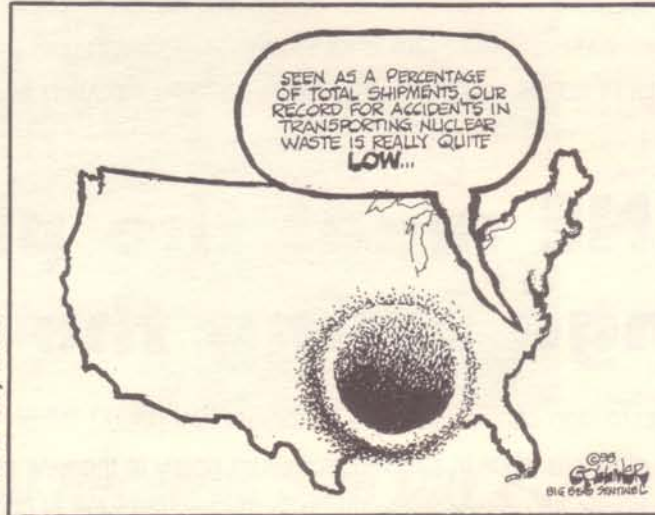
As South Carolina's appeal received yet another unfavorable decision from the 4th circuit,

it is widely rumored that the top-secret Rocky Flats' plutonium shipments are already taking place. Also secret is the exact nature of the plutonium, some of which is powdered plutonium oxide, the form which poses the most risk to human health and the environment and which can catch fire when exposed to air. Plutonium has a hazardous life of over a quarter million years.

Governor Hodges is now preparing South Carolina's final appeal for the Supreme Court. It remains to be seen if the Supreme Court will review the case.

— Glenn Carroll

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back to the drawing board for at least a year to plan for accommodating 25 percent more plutonium of a highly impure nature. Governor Hodges became concerned at the prospect that MOX would go the way of immobilization and South Carolina would end up the dumping ground for the nation's plutonium. He filed a NEPA suit against DOE and requested an injunction against transporting plutonium until the NEPA issues were decided. The State of Colorado is seeking White House support for fast-tracking closure of the Rocky Flats facility near Denver which machined plutonium into

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