

NUKEWATCH

NRC (Nuclear 'Racism'
Commission) Targets Native
Land — see back page

PATHFINDER

A publication of the Progressive Foundation — Fall 2005

News & Information on Nuclear Weapons, Power, Waste & Nonviolent Resistance



Bombings Recalled with Nonviolent Resistance

By Molly Mechtenberg-Berrigan

Antinuclear activists from across the country gathered at four major nuclear weapons sites and dozens of other places to commemorate the 60th anniversary of the U.S. atomic bombing of Hiroshima and Nagasaki. Nonviolent protests ended in a total of 239 arrests.

An August 9 rally at Lawrence Livermore featured Dr. Satoru Konishi, a survivor of the Hiroshima bombing. Out of a total of 100 demonstrators, 54 were arrested for blocking an entrance to the lab. The civil resistance followed an August 6 rally in which 300 people marched to the gate and planted sunflowers. The lab currently stores 880 pounds of weapons-grade plutonium, enough to make 300 warheads.

On August 6, at Oak Ridge, some 1,500 activists carrying signs and beating drums marched to the gates of the Y-12 nuclear weapons factory, where uranium was supplied for the bomb dropped on Hiroshima. Fifteen people were arrested including Nukewatch staffer Bonnie Urfer and volunteer John Heid. They were held for three days, along with nine other protesters, in the Anderson County jail before being sentenced to time served. The event was the largest protest ever held in the city of Oak Ridge.

A three-day conference and retreat focused on the Nevada Test Site — location of 1,000 U.S. Bomb tests — drew 450 people. In a mass action shortly after midnight August 6, 170 people walked

onto the test grounds and were detained. They were all later charged and released.

At Los Alamos, New Mexico, more than 500 people gathered August 6 to protest its weapons research. The lab continues to design, promote and develop new nuclear weapons.

Among dozens of anniversary demonstrations around the U.S. was an August 8 action at Alliant Techsystems, headquartered in Edina, Minn., where 13 people were arrested. Another 12 were arrested August 6 at weapons giant Lockheed Martin in Valley Forge, Penn.; three were jailed at Peterson AFB, headquarters of Space Command, outside Colorado Springs; and in St. Petersburg, Florida, six were arrested — two for carrying signs onto private property, and another four for blocking the squad car. On Nagasaki Day, eight were arrested at the Army Corps of Engineers in New York City (where the Manhattan Project got its name), and two were cited the same day at weapons merchant Raytheon in Andover, Mass.

Seventy people gathered at the gates of the Bangor Trident submarine base in Puget Sound, Washington on August 8, and 19 were arrested for blocking a road to the base, shutting it down for 45 minutes. In Washington, DC, 40 people gathered at the Pentagon on Nagasaki Day, August 9. Seven protesters were arrested and handled roughly by the Pentagon police for blocking an entrance.

Thanks to The Nuclear Resister for details on some reports.

www.laka.org
Digitized 2018

Nuclear War Planners "Never understood, didn't care"

By Molly Mechtenberg-Berrigan

Sixty years ago this past August, the U.S. exploded two atomic bombs over Hiroshima and Nagasaki. On Aug. 6 the White House claimed, and the press reported that the bomb was dropped "on the Japanese army base at Hiroshima," providing no information about the absolute destruction of the city or the tens of thousands of dead and injured men, women and children. President Harry Truman called the event the "greatest achievement of organized science in history." Until the news broke, the development of the atomic bomb was a complete secret, even for those who had worked at the factories and plants to help develop it.

The devastating power of nuclear weapons is no longer a secret. It is still common, however, to speak of nuclear weapons using statistics and war-fighting strategies — the abstract language of Pentagon war planners. It is easy to forget the Bomb's mass destruction caused by blast damage, fires, hurricane-force winds, and cancer-causing radioactive fallout. It is easy to forget the indiscriminate nature of nuclear weapons, which instantly vaporize men, women and children alike. It is easy to forget charred skin, third degree burns and radiation sickness. It is easy to forget that there still exist over 20,000 nuclear weapons, thousands on hair-trigger alert.

Below is a description of the likely effects of an explosion of a single 300-kiloton device, the approximate yield of many modern strategic nuclear weapons. This scenario is simplified, given the fact that nuclear strategy involves targeting a city with multiple warheads. Keep in mind that the Hiroshima bomb had 12.5-kilotons of TNT equivalent, and the Nagasaki bomb 21-kilotons. Today's bombs are far more powerful.

A radioactive firestorm

The detonation of a 300-kiloton nuclear bomb approximately 1,500 feet off the ground would release 300 trillion calories of energy in one millionth of a second. Most of this initial energy comes in a blinding flash of intense light. The superheated air creates a fireball. The fireball increases in size to about one-mile in diameter, with temperatures at its center reaching more than 200 million degrees Fahrenheit — about four to five times the temperature of the sun. Everything in close proximity to this

fireball — trees, buildings, cars, people — are vaporized. Within minutes of a detonation, fires spread in all directions.

Fifty percent of the energy released from a detonation is in the "blast wave." The expansion of gases create a shockwave of air radiating outward, producing sudden



The center of Hiroshima after the U.S. atomic bombing, August 6, 1945. Only a few concrete buildings are left standing. Hiroshima had been a busy city of 350,000 people — the size of Denver. Cumulative deaths from the surprise morning attack, according to the Japanese government, amount to 237,062. In Nagasaki, when the long-term effects of radiation are included in the calculations, another 137,339 were killed.

— Knoxville, Tenn. *News Sentinel*, Aug. 7, 2005

Hiroshima & Nagasaki Myths Unraveling

by John LaForge

The 60th anniversaries of the U.S. atomic attacks on Hiroshima and Nagasaki were commemorated around the world and noted in papers and magazines everywhere. *Time* and *National Geographic* both ran lengthy and nearly "comprehensive" reports that — as usual — neglected even a single photograph of a victim. The better to help us deny the medical, ethical and legal consequences of these U.S. atrocities.

At Hiroshima, 140,000 men, women and children were turned into powder and ash; another 100,000 died at Nagasaki. After five years, an additional 130,000 inhabitants of the two cities died lingering, painful deaths from radiation poisoning.

The Australian war correspondent Wilfred Burchett saw Hiroshima on Sept. 2, 1945. He wrote in the *London Daily Express*, "Thirty days after the first atomic bomb destroyed the city and shook the world, people are still dying, mysteriously and horribly — people who were uninjured in the cataclysm — from an unknown something which I can only describe as the atomic plague. ... I write these facts as dispassionately as I can in the hope that they will act as a warning to the world. ..." The warning went unheeded and was unpublished in the censored U.S. press.

Censorship helped the atomic bombings blast the earth into the "nuclear age" that has seen governments produce global contamination from open-air bomb tests, human radiation experiments on 16,000 U.S. citizens, nuclear fallout poisoning of 400,000 atomic veterans, countless cancers among "downwinders" living under the fallout plumes, millions of tons of mishandled and uncontainable radioactive waste, radiation disasters at Windscale in England, Church Rock in New Mexico, Three Mile Island in Pennsylvania, Tomsk in Siberia, Chernobyl in Ukraine — and a raging, international "atomic plague" we call the cancer pandemic.

We all know the official spin: The Bomb was used to "save" the lives of invading U.S. soldiers and Japanese defenders. President Harry Truman, who allowed the bombs to be used on heavily populated cities, continued in his retirement to say so, claiming several times that up to half-a-million lives were saved by the atomic bombings.

Actual estimates by U.S. military planners for U.S. troops' lives that would be lost in an invasion varied from 20,000 to 63,000. Gen. George C. Marshall, then the military chief of staff, agreed with his planners' estimate of 46,000.

The "saved lives" story is still believed by much of "the greatest generation" — those that won't consider either the historical record or books like Alperovitz's *The Decision to Use the Atomic Bomb* (Knopf, 1995) or Lifton's and Mitchell's *Hiroshima In America: Fifty Years of Denial* (Putnam, 1995). Both studies copiously document the cynical and deliberately suppressed history — buried in U.S. government reports, presidential libraries and

by the U.S. Army itself. A formerly classified study done in 1946 — and uncovered in 1989 — by the War Department's Military Intelligence Division, flatly contradicts the official cover. The Army concluded that a large-scale U.S. invasion of Japan would never have taken place. This study was labeled top secret and hidden from the public for 44 years.

The U.S. Strategic Bombing Survey found in late 1945, "The Hiroshima and Nagasaki bombs did not defeat Japan, nor by the testimony of the enemy leaders who ended the war did they persuade Japan to accept unconditional surrender. ... Certainly prior to December 31, 1945, and in all probability prior to November 1, 1945, Japan would have surrendered even if atomic bombs had not been dropped, even if Russia had not entered the war, and even if no invasion had been planned or contemplated."*

It is this generally denied reality that led Brigadier General Bonnie Fellers to write in the July 1947 *Reader's Digest*, "Obviously ... the atomic bomb neither induced the Emperor's decision to surrender nor had any effect on the ultimate outcome of the war."#

Since Japan's surrender was only days or weeks away, the bomb could have been demonstrated in the desert, or at sea — instead of being used against a city the size of Denver. Scientists and diplomats made these suggestions to Truman. Ten weeks before Hiroshima, Gen. Marshall recommended that the bomb be used only on a "straight military objective" and only after civilians were adequately warned so they could flee. This advice was snubbed.

Hiroshima's City Council wrote to Truman in his retirement, asking pointed questions we all should answer:

"Do you consider it a humane act to try to justify the outrageous murder of two hundred thousand civilians of Hiroshima, men and women, young and old, as a countermeasure for the surprise attack [on Pearl Harbor]?"

"Do you consider your country, which, having manufactured the atomic bomb, was aware of its explosive power and could anticipate the formidable destruction ... excused, just because it is a conqueror, for the crime of the first, the most cruel, and the largest-scale manslaughter that has ever taken place in the history of [hu]mankind?"

Millions more need to arrive where the Bomb's designer — Robert Oppenheimer — said we would. Oppenheimer wrote, "If atomic bombs are to be added as new weapons to the arsenals of a warring world or to the arsenals of nations preparing for war, then the time will come when [hu]mankind will curse the names of Los Alamos and of Hiroshima."

* Robert Lifton and Greg Mitchell, *Hiroshima In America: Fifty Years of Denial*, Grossett & Putnam, New York, 1995, p. 83; # Gar Alperovitz, *The Decision to Use the Atomic Bomb*, Knopf, 1995, p. 352.

changes in air pressure and high winds that crush large structures, office buildings, homes, bridges and cars. The blast wave intensifies fires by exposing ignitable surfaces and dispersing burning objects.

Seven-tenths of a mile from ground zero, within a half-second of the detonation, light from the fireball, 5,000 times brighter than the noon sun, melts asphalt in the streets, burns paint off walls, and melts metal surfaces and glass. One second later, the blast wave hits with 750 mph winds. Objects such as heavy desks, tables, furniture, cars and trees become deadly projectiles. Virtually no one in an area of about 65 square miles survives.

Thermal radiation, or heat, accounts for 35 percent of the energy released in a detonation. Scattered fires coalesce into a firestorm. Clothes exposed to the fireball ignite or melt, and uncovered skin is scorched causing third-degree burns. Light from the fireball approximates 600 suns, twice the thermal energy at the edge of the mass fire at Hiroshima, three-and-a-half-miles from ground zero. Fires ignite as far away as 4.6 miles from ground zero. Blast damage to stores, water heaters, furnaces, electrical circuits or gas lines ignites fires where fuel is plentiful.

The firestorm creates air temperatures well above the boiling point of water. Within 10 minutes of the explosion, the pumping action from rapidly rising hot air generates superheated ground winds of staggering force, transforming the area into a hurricane of fire. Smoke, dust and intense heat make it nearly impossible for emergency response teams to function. The fire burns at this intensity for three to six hours, eliminating all life in the fire zone.

Radiation effects account for 15 percent of the energy released in a detonation. Direct radiation contamination occurs at the time of the blast and soon thereafter, as solid radioactive materials, catapulted into the air by the explosion, settle back to the earth and contaminate soil, water, food and immediate survivors. The extent of radioactive fallout depends on weather conditions at the time of detonation, particularly wind direction and speed.

People exposed to high doses of radiation, 4,000 to 5,000 rads, suffer what is known as Central Nervous System Syndrome. Their brain tissue, damaged by the radiation, swells, causing nausea, vomiting, diarrhea and progressive difficulty walking, talking and thinking clearly. They develop convulsions, pass into a coma and die, usually within a day or two.

People exposed to lesser doses of radiation, from 400 to 600 rads, suffer a gastrointestinal form of radiation sickness. They experience nausea, vomiting and diarrhea soon after exposure which lasts for several days and then seems to improve. But within a week, symptoms return and become worse. The majority of these patients also die, despite the most intensive medical therapy. Lower doses of radiation, 100 to 300 rads, cause bone marrow to stop producing normal numbers of white blood cells, and these people become prey to infection. Without adequate care these victims also die.

In addition to burn and radiation sickness there are many thousands of other injuries. These include people blinded by the flash or deafened when the pressure wave ruptured their ear drums, people whose lungs collapsed under the tremendous pressure, wounds to the head, chest and abdomen caused by flying debris, and broken bones resulting from the hurricane force winds or collapsing buildings.

The population is devastated and medical resources are incapable of coping with the high rate of injuries. Hospitals are destroyed, food and water contaminated, transportation and communication severely compromised. The long-term consequences of a nuclear detonation are incalculable.

Blatant disregard for consequences

In 1999, Gen. George Lee Butler, former Commander-in-Chief of the U.S. Strategic Command, wrote regarding war plans for a U.S.-Soviet Union war, "[T]he calculation as to the military effectiveness of that attack was based on only one criterion, and that was blast damage. It did not take into account fire; it did not take into account radiation. Can you imagine that? We never understood, probably didn't care about, and certainly would not have been able to calculate with any precision, the holistic effects of 20,000 nuclear weapons being exploded virtually simultaneously on the face of the earth."

The blatant disregard for a comprehensive look at nuclear destruction continues today, as plans for "mini-nukes," the robust nuclear earth penetrator and a revitalized nuclear arsenal are being pushed forward by the Republican Right. The Bush Administration has clearly stated its willingness to use nuclear weapons in a first-strike capacity against what it considers "rogue" states.

Sixty years after Hiroshima, the words of Albert Einstein, who helped develop the bomb, hold true, "The release of atom power has changed everything except our way of thinking. ... The solution to this problem lies in the heart of [hu]mankind. If only I had known, I should have become a watchmaker."

Sources: "City on Fire," by Lynn Eden, *Bulletin of the Atomic Scientists*, Jan./Feb. 2004; "Effects of a Nuclear Explosion," by Ira Helfand, M.D., *Physicians for Social Responsibility*.

Missile Fields of the U.S.

We have yet to fully grasp the monstrous effects of these weapons, that the consequences of their use defy reason, transcend time and space, poison the earth and deform its inhabitants. — General George L. Butler (USAF, Ret.), former head of U.S. Strategic Command.

By John LaForge

Land-based missiles have been removed from Missouri South Dakota and eastern North Dakota. But the Pentagon intends to maintain 500 nuclear-armed, land-based intercontinental ballistic missiles well into the 21st century.* They are Minuteman IIIs, which carry three 335-kiloton warheads.

The Minuteman missiles will be deployed at three bases in the great plains states: Minot AFB, North Dakota (150), Malmstrom AFB, Montana (200), and F.E. Warren AFB, Wyoming (150). The missiles are all being refitted to carry one warhead — in compliance with the START II Treaty. But during the refitting process about 1,150 warheads are still on these ICBMs.+

Although the government calls it disarmament, 150 Minuteman II missiles at Malmstrom AFB, in Montana have been replaced with Minuteman IIIs, “disarmed” from the Grand Forks AFB in North Dakota.

Four years ago, all 150 Minuteman IIIs outside Cheyenne, Wyoming were refitted with one W62 (170 kiloton) warhead. According to the Air Force, these 150 missiles — maintained by F. E. Warren Air Force Base — will soon have their W62s replaced with more powerful W87 warheads salvaged from “retired” MX missiles. The upgrade project is to be finished by 2007. The W87 is a 475-kiloton behemoth, 38 times the power of the Hiroshima bomb.

In July 2004, the Air Force said it was beginning a \$6 billion “modernization” program for “the 500 Minuteman III missiles on alert within the 20th Air Force.” The billions are for what it called guidance system replacement.

Missile experiment “ends,” makes way for more

In 2002, the Pentagon announced that all 50 of the ten-warhead MX missiles — dubbed “Peacekeepers” by the Reagan White House — would be taken out of service. “We began [deactivation of MX] in October 2002,” said Maj. Gen. Frank Klotz, Commander of the 20th Air Force, a part of the Air Force Space Command. Expected to take three years, “We’ll be ‘mission complete’ before the end of September 2005,” Klotz said.

According to Gen. Klotz, “Once the [MX missiles] have been removed, they are shipped to Hill Air Force Base in Ogden, Utah, for possible future use in some different form.” The research service Jane’s Missile and Rockets reports that 200 W87 warheads will be modified and transferred to the single-warhead Minuteman IIIs.

Some of the retired MX rockets will be sent to NASA for space research and for satellite launches. The rockets

will also be used for “target practice” in the Ballistic Missile Defense program.

Bill Sulzman, director of Citizens for Peace In Space, located in Colorado Springs, told Nukewatch Aug. 24, “I just got an email from Cheyenne that in another month all of the MXs will be out of Wyoming.”

Not satisfied with its \$6.5 billion upgrade, the Pentagon’s 2002 Nuclear Posture Review recommended still more nuclear weapons development. The Review suggests a new model ICBM for 2020, a new submarine-launched ballistic missile in 2029, and a new heavy bomber in 2040.

Minuteman missiles still harbor 2.3 “nuclear winters”

The number of Minuteman missiles is down from the 1,000 that were deployed at the height of the nuclear arms race, when Nukewatch published *Nuclear Heartland*, the only atlas of the U.S. land-based missile system. Four hundred and fifty missiles formerly in South Dakota, Missouri and Grand Forks, North Dakota have been retired or used to replace Minuteman IIs.

The W87 warheads soon to be on all the Minuteman IIIs can be ratcheted up in explosive power from 300 kilotons to 475 kilotons.

These 500 warheads will have the power of 19,000 Hiroshimas, enough to kill 2.6 billion people. The Hiroshima bomb was a 12.5 kiloton weapon.

Another way of looking at this “nuclear overkill” capacity is that 500 W87s can carry 237,500 kilotons; or 237 “megatons” of nuclear firepower.

In his 1983 study *The Nuclear Winter*, Dr. Carl Sagan estimated that if even 100 megatons were exploded in low-yield air-bursts over cities, the smoke, soot and ash thrown into the atmosphere would create “nuclear winter,” darken and chill the earth and devastate food crops.

“Historic” Sites Recall Cold War Nuclear Madness

A missile “museum” will be established at the Grand Forks AFB in North Dakota in a launch site that was retained during the dismantling of the base’s 150 silos. The Cold War novelty will join two nuclear weapons National Historic Sites near Rapid City. The South Dakota Minuteman Missile National Historic Site was formally added to the National Park System in 1999. It consists of the D1 Launch Control Center (named “Beth and Mike’s launch control center” in the Nukewatch book *Nuclear Heartland*) and the D9 “Cassandra’s” missile silo. Both are just east of the famous Wall Drug tourist attraction.

* Other nuclear weapons in the U.S. arsenal include 2,016 warheads aboard 16 Trident submarines, and 1,050 H-bombs carried on 115 jet bombers. And in spite of ongoing protests, another 480 U.S. nuclear weapons are still deployed across parts of Germany, Belgium, the Netherlands, Italy and England.

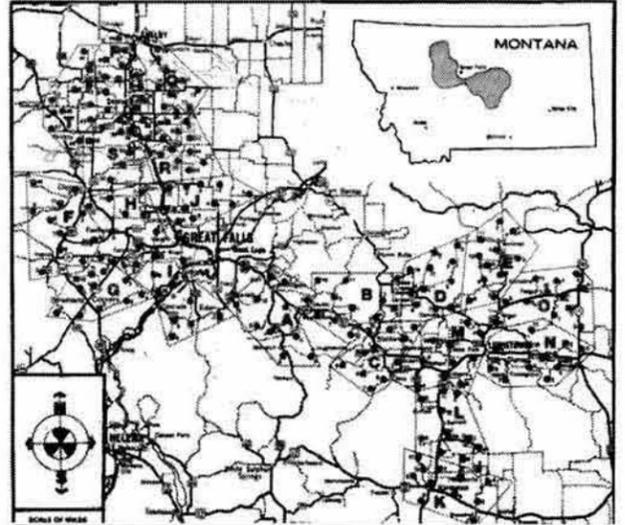
+ *Bulletin of the Atomic Scientists*, Jan./Feb. 2005



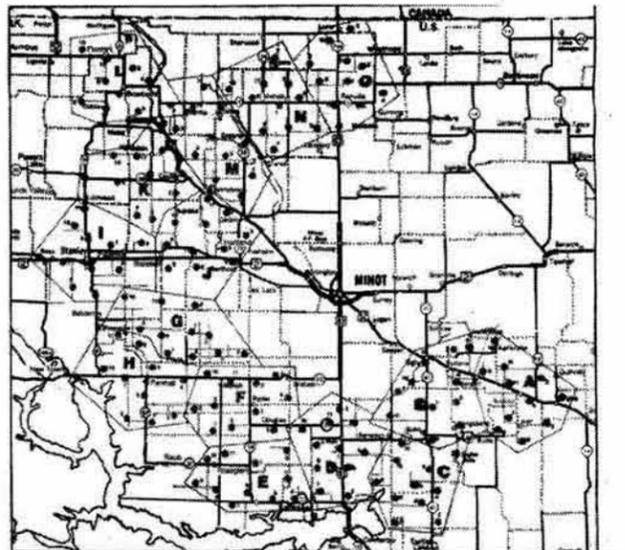
photo by John LaForge

The radar and silo cover of Minuteman missile H-5 looms over a family farm just west of Great Falls, Montana.

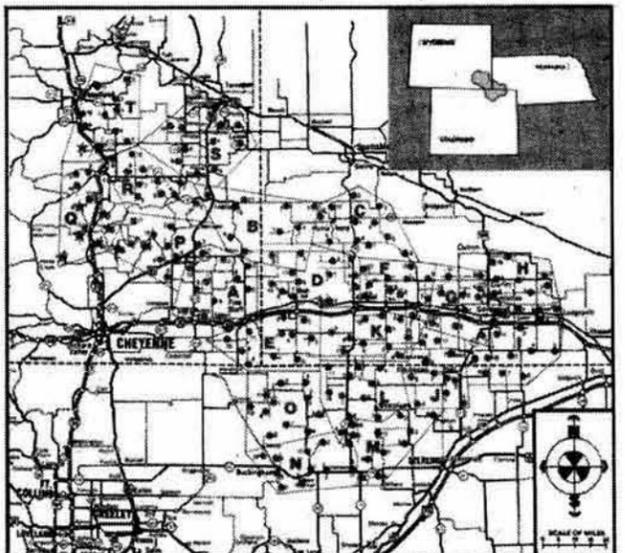
MISSILE SILOS OF MONTANA



MISSILE SILOS OF NORTH DAKOTA



MISSILE SILOS OF THE HIGH PLAINS



Nukewatch produced missile silo maps between 1985 and 1988 during a campaign to document each site. Each dot represents a Minuteman missile or launch control center. The stars north of Cheyenne, Wyo. mark the location of the first MX missiles (now removed). The MX’s 500 warheads will be placed, one per rocket, on the remaining 500 Minuteman IIIs still deployed across the Great Plains.

Trim Radioactive Pork, Save \$2 Billion

An analysis of 10 nuclear programs in the Department of Energy’s 2006 proposed budget finds that seven of the programs should be eliminated, while support for environmental cleanup should be increased.

The report, “Top Ten Department of Energy Radioactive Pork Projects in the 2006 Budget,” was compiled by the Alliance for Nuclear Accountability (ANA) with the help of Concerned Citizens for Nuclear Safety and the Nuclear Age Peace Foundation. ANA is a network of 30 organizations representing communities located near nuclear weapons sites and radioactive waste dumps.

Projects targeted for the budget axe include the Reliable Replacement Warhead, the Robust Nuclear Earth Penetrator, the Modern Pit Facility, and three nuclear reactor programs like the Nuclear Energy Revival. The proposed savings amount to over \$1.8 billion.

DOE’s budget request is currently in conference committee where the House and Senate versions of the bill will be reconciled. The House cut all funding for research into a new nuclear bunker buster and a plutonium bomb factory, and it significantly reduced funds for new plutonium fuel manufacturing. The Senate cut money for a weapons research facility and the Yucca Mountain rad waste dump.

The report recommends elimination of the Reliable Replacement Warhead and the Orwellian-sounding Life Extension Program (the “life” of hydrogen bombs.) Both programs pre-suppose a permanent nuclear arsenal and go beyond warhead maintenance; they would be used for new warhead development. As such, the report finds, they would likely violate the Nuclear Non Proliferation Treaty.

Both objectives can be accomplished under other programs, and the savings would amount to \$2.4 billion over five years.

The study also identifies the proposed Nuclear Energy Revival as a dangerous source of wasteful spending. The House included a new plan for storing commercial nuclear waste at DOE sites and “reprocessing” it on-site. ANA recommends that Congress eliminate promotional funding for nuclear power. The report says, “Nuclear power is unsafe, expensive, and generates huge amounts of dangerous waste.

Reprocessing, or “recycling” nuclear waste into nuclear fuel “is tremendously expensive, creates wastes [See Hanford stories, p. 3] and encourages nuclear proliferation.”

The cuts proposed by ANA would save billions of dollars, money that could be used for environmental cleanup. “These cuts are a step in the right direction to reduce federal deficits and form the basis for better nuclear policy. Over the next five years, billions more could be cut from DOE’s budget that could be directed toward addressing the environmental and health legacy of nuclear weapons production and deficit reduction,” the study said.

Projects recommended for elimination:

- * Life Extension Program (\$348 million), for extending indefinitely the retention of weapons in the nuclear arsenal;
- * Reliable Replacement Warhead (\$9.4 million), which duplicates work done elsewhere and could encourage the development of new nuclear weapons;
- * Robust Nuclear Earth Penetrator (\$8.5 million), which if produced would violate the Non Proliferation Treaty;
- * Modern Pit Facility (\$7.7 million), to manufacture plutonium triggers, an activity that in the past has produced massive contamination;
- * Enhanced Nuclear Testing Readiness (\$25 million), would prepare the Nevada Test Site to resume full-scale underground nuclear explosions;
- * National Ignition Facility (\$142 million), the multi-billion dollar Lawrence Livermore Laboratory weapons design machine plagued by cost overruns, technical problems and protests;
- * Tritium Production (\$87.5 million), to produce the radioactive gas that boosts the power of H-bombs;
- * Plutonium Fuel Fabrication (\$338 million), designed to manufacture reactor fuel from plutonium;
- * Yucca Mountain (\$651 million), the much-delayed and unsuitable radioactive waste dump program; and
- * Nuclear Energy Revival (\$191 million), subsidies expansion of the nuclear power industry, transportation of its radioactive wastes, and extraction of plutonium from used fuel rods. — JL

Hanford Waste Contaminates Columbia River Watershed

SEATTLE, Washington — Radioactive contamination on public land around the Hanford Reservation in southeast Washington state is higher and more geographically widespread than previously thought, according to a report from a government watchdog group and a chemical data firm. The Government Accountability Project (GAP) and Boston Chemical Data issued the findings which include the first reports of plutonium in clams and fish in the Columbia River. The river flows through the 586 square mile Hanford site and provides drinking water for Portland, Oregon. The June report includes evidence that radiation levels in mulberry trees are higher than previously reported and that high levels of strontium-90 have entered the ecosystem.

A plutonium production complex with nine nuclear reactors and processing facilities, Hanford played a leading role in U.S. nuclear weapons building for more than 40 years, beginning in the 1940s with the Manhattan Project.

"This is hard evidence that points to past Department of Energy reports as being inadequate to protect the people of southwest Washington and northern Oregon," said Tom Carpenter, GAP Nuclear Oversight Campaign Director. The report was researched and written by Marco Kaltofen, a registered professional engineer and environmental scientist with more than 19 years of experience in environmental investigations. Kaltofen is the president of Boston Chemical Data, which specializes in environmental investigations.

The report, "Citizens Monitoring of Columbia River Radionuclides," was peer reviewed by a retired Hanford scientist as well as the Oregon Office of Energy.

In addition to plutonium being found for the first time in fish, increased levels of strontium, mercury, beryllium, uranium and cesium were detected in aquatic life. The effects of this exposure remain unknown, the report states.

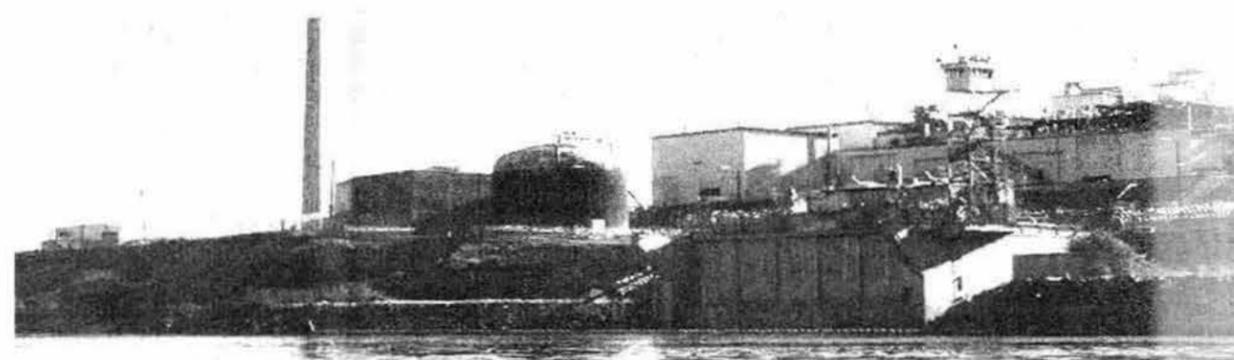
The study also found that mulberry leaves from the Columbia River shoreline at Hanford are toxic, indicating that the mulberry wood may be contaminated. Strontium-90 levels in mulberry leaves are 875 times higher than levels found near Richland, the report found. Ingestion of 0.05 ounces per day of similarly-contaminated food would exceed EPA's maximum allowable risk level of 4 [millirem] per year. While the mulberry contamination shows "increased environmental risk via transfer of groundwater hazards into the biosphere," Kaltofen wrote, the uptake of strontium-90 by mulberry plants may offer a potential method of remediation for groundwater cleanup in the root zone of mulberry plants.

Rodent scat from the test area was found to have levels of strontium-90 more than 13 times that of scat examined in downstream areas, "showing that the material has entered the food chain for higher organisms," the report said.

Surprisingly, an area of the Columbia River 20 miles upstream from the Hanford site showed high uranium readings, according to testing conducted for this report. There is no explanation for this finding, but a possible explanation is that "contamination was either windblown or carried up the river by aquatic organisms," the report states. Windblown contamination was also measured in attic dust collected from homes in Richland. One sample showed levels of radiation six times higher than samples taken from attics in houses in other parts of the country.

Hanford is engaged in the world's largest environmental cleanup project. According to its own records, the site held

public concern," said Tom Carpenter of GAP. The group is requesting Congressional funding for a Natural Resources Injury Assessment, independent of the DOE, to examine contamination around the Hanford site, said Carpenter. "We need to find out what this data means for public health concerns immediately. At a time when the government is planning to import nearly double the amount of contaminated waste already at Hanford, it is crucial to have credible environmental data," he said.



The Hanford Reservation which produced plutonium for decades, is situated along 50 miles of Columbia River. Both upstream and down, the Columbia's watershed has been contaminated with Hanford's deadly fission products.

before leaking more than 50 million gallons of high-level liquid waste in 177 underground storage tanks, 2,300 tons of irradiated nuclear fuel rods, 12 tons of plutonium in various forms, 25 million cubic feet of buried or stored solid waste, 1,700 waste sites, and 500 contaminated facilities. About 270 billion gallons of groundwater (spread out over about 80 square miles) has been contaminated above drinking water standards. A map in the report, by the U.S. Army Corps of Engineers, shows the regions sampled for the study. "The Corps' original graphic directs the reader to conclude that the Columbia River marks the end of the portions of the Hanford Reservation which are not yet cleaned of radionuclide wastes," Kaltofen writes. "In reviewing the test results, the data do not show that the river is a barrier or boundary to Hanford-related contamination. Instead," Kaltofen writes, "the Columbia River is both a sink and a transport mechanism for these wastes."

"The DOE does not place a priority on testing conditions outside of the Hanford perimeter in places where the public is allowed to fish and recreate. Our findings call for increased scrutiny on all levels regarding this area that is of grave

Food Irradiation: Exposure Up, Acceptance Down

School districts reject irradiated beef

This spring, the Food and Nutrition Service of the United States Department of Agriculture conducted a nationwide survey of school districts to identify their interest in irradiated meat products for the 2005-'06 school year. The results encouraged irradiation opponents: Not a single school district placed an order! The positive disinterest marked a significant change over last year when schools in Texas, Nebraska and Minnesota all ordered irradiated beef. The turn around is attributed to the higher price of the treated meat and general public resistance to the technology.

Higher level of X-rays allowed for irradiating food

This past winter, the Food and Drug Administration quietly announced that it was allowing the irradiation industry to dramatically increase the permitted dose of X-rays used to irradiate food. At the higher dose rates, 7.5 million electron volts, trace minerals in food (potassium, magnesium, nickel, etc.) can become radioactive, according to the FDA. The FDA and Sterigenics, the irradiation company that sought the rule change, claim that the radioactivity will be short-lived. However, the FDA has not conducted studies of a diet of foods exposed to huge X-ray doses. Consumer groups including Public Citizen complained that the public should not have to tolerate radioactivity caused by food industry treatments.

The higher doses will allow food in large shipping containers from overseas to be irradiated in one blast. This will endanger ship and dock workers, add to the enormous amount of imported foods flooding U.S. markets, and force ever more U.S. farmers and ranchers out of business.

The FDA has long ignored the documented health hazards associated with irradiation. Lab animals fed irradiated food have been observed suffering increased stillbirths, mutations, tumors, organ damage, stunted growth and premature death.

Irradiation of oysters approved by FDA

In August the U.S. Food and Drug Administration decided to permit the use of irradiation on shellfish such as oysters, clams and mussels. The FDA is promoting irradiation despite the fact that questions about long-term health impacts remain unanswered and serious public resistance to food irradiation appears to be growing.

FDA Commissioner Lester Crawford, speaking to the International Congress on Meat Science and Technology Aug. 8, said that the risk of food-borne illnesses in shellfish can be substantially reduced by cutting the time from harvest to refrigeration or freezing and using high pressure or mild heating. Crawford said, "85 to 90 percent of Vibrio illnesses in the Gulf Coast states could be eliminated if the product were iced within four hours or refrigerated within one hour of harvest." In spite of the fact that these alternatives exist the FDA chose to approve irradiation.

NRC withdraws irradiator's operating license

CFC Logistics Inc., the food irradiation facility in Milford, Ohio that closed its doors last April, is officially decommissioned. Its radioactive cobalt-60 rods were removed in May and shipped to MDS Nordion, the Canadian company from which they were purchased. The NRC inspected the site and claimed that "no residual radiation" remains. Beginning in August 2003, CFC Logistics encountered strong resistance from local residents opposed to irradiation. The campaigning helped engender a lack of interest in irradiated beef, resulting in the shut down.

Hanford's Rad' Sludge May Be 'Glassified'

RICHLAND, Washington — Barring further delays, the Department of Energy and Bechtel Corp. should complete construction of a \$7 billion nuclear waste facility at Hanford sometime in the next decade. Then the DOE may finally begin the projected 20-year process of "glassification" — remotely and mechanically turning 53 million gallons of extremely radioactive sludge into steel-encased blocks of "glass."

The most deadly components of the waste, including millions of gallons of strontium-, cesium- and technetium-contaminated liquids, are by-products of nuclear fission from Hanford's nine uranium-fueled "production" reactors. The function of the reactors for 45 years was to produce plutonium for nuclear warheads.

To separate the plutonium from other by-products, slugs of hot uranium fuel were dissolved in nitric acid and chemically filtered. Once the plutonium was "reprocessed," the waste was dumped into 177 "sludge" tanks. The tanks now contain 200 million curies of radiation and constitute roughly half of the nation's highest-level nuclear waste.

When the glassification operation gets started, the sludge will flow under pressure through a mile of double-walled, concrete-shielded pipe, from the underground tanks to a pretreatment building. To ease the flow, operators will ultimately add 100 million gallons of water to the material.

Pretreatment will be the largest structure in the complex — 12 stories tall and 500,000 square feet with a reinforced concrete pad 10 feet thick. There, the first stop for all the muck is the "black cell" area, where 275 ton stainless steel vessels surrounded by steel-reinforced concrete walls 6 feet thick receive the waste. This area has some of the most robust engineering of the entire complex. [All of this waste is robotically handled because living things in close proximity would be killed.] Eventually the black cells will become so highly radioactive that no person will ever be allowed to set foot there.

Overall, the building will boast 51 major stainless steel vessels with liquid capacity of 4 million gallons. Waste will move from vessel to vessel, with filters and chemical precipitation processes used to separate high-level solid waste from lower-level liquid waste. The process will have to be continually adjusted: No two sludge tanks contain the same radioactive and toxic stew.

The two waste streams will flow to either the high-level waste building or to the low-level waste building. In either

case, the waste is pumped into a holding vat where glass ingredients such as silica, zinc oxide and aluminum silicate are mixed in. The resulting slurries are then injected into melters designed with technology from Duratek, Inc., a radioactive waste management firm.

The size of a two-car garage, the melters receive the slurry and zap it with 600 kilowatts of electricity from nickel-based alloy electrodes, heating it to 2,000 degrees Fahrenheit. Mixed using hot-air bubblers, the brew is poured into stainless steel canisters — 1,500 a year. The high-level waste canisters are 2 feet in diameter and 14.5 feet long; once filled they will weigh 4 tons. Ultimately, the DOE expects to produce 10,000 high-level waste canisters and thousands more low-level ones. The low-level canisters will be buried in the desert at Hanford. The high-level canisters will go to a geologic depository, such as Yucca Mountain, if one ever opens. For thousands of years, these canisters will remain radioactive enough to kill a person on contact.

On the strength of its designs for the feds, Duratek has tentatively won a contract with Russia for a melter to treat plutonium-laced sludge. It's also in the running for a \$60 million melter in China, and another in Israel, all to treat plutonium waste. But none will be as big as Hanford. Says Duratek's chief melter engineer Mark Clements, "If we win the Chinese contract we'll have that melter built, operating and even decommissioned before Hanford's vitrification gets under way." — Excerpted from Forbes, Aug. 1, 2005

Hanford Sludge Pipe Whistle Blowers Win \$4.7M

On Sept. 2, a jury awarded more than \$4.7 million in damages to 11 Hanford workers who proved they were fired for expressing safety concerns about a test of moving plutonium-contaminated sludge through heavy ducts. In 1997, seven of the workers objected to instructions to install a valve they said was not rated to withstand the pressure needed for a test of moving the waste. The test was in preparation for the planned "glassification" of the liquid wastes. The crew was fired but a settlement required the contractor, Fluor Federal Services, to rehire the team. They then sued for damages.

NUCLEAR SHORTS

Radioactive Tourism at Chernobyl

PRIPYAT, Ukraine — Tourists are participating in what may be the strangest vacation excursion available in the former Soviet Union — the packaged tour of the Chernobyl exclusion zone, scene of the worst civilian disaster of the nuclear age. Inside a 19-mile radius around Chernobyl's reactor number 4, with its radioactive legacy from the explosions on April 26, 1986, everything has been abandoned. The tour includes visits to a graveyard of ambulances, armored vehicles, trucks, aircraft and helicopters used to fight Chernobyl's fires, where roughly 2,000 radioactive machines are parked. Tourists must obey rules while visiting the radioactively contaminated site. Visitors must stay on concrete and asphalt and not touch anything. Levels of radiation in the tour areas vary from 15 to several hundred microroentgens an hour; a lethal dose of radiation ranges from 300 to 500 roentgens an hour (a microroentgen is one-millionth of a roentgen). Dangers at these levels, according to the tourist agency, lie in long-term exposure. The Chernobyl site opened for tours in 2002 attracting only a few takers. In 2004, 870 people toured the site. A one-day excursion costs between \$200 and \$400, including transportation and a meal. Forty-five thousand people used to live in the exclusion zone.

— *New York Times*, June 15, 2005

Belgian Parliament Wants U.S. Nukes Out of Europe

BRUSSELS — In July, the Belgian House of Representatives adopted a resolution on nuclear disarmament and nonproliferation, calling for the withdrawal of the U.S. nuclear weapons based in Europe. The resolution also seeks to exclude nuclear weapons from the common EU security policy. This is the second time that a parliamentary assembly in Europe has demanded the withdrawal of U.S. nuclear weapons. The Belgian Senate approved a similar resolution April 21, 2005. An estimated 480 U.S. tactical nuclear weapons are deployed in Belgium, Germany, England, Italy, the Netherlands and Turkey. The U.S. is currently the only country to station nuclear weapons on the territory of other countries.

Also in July, New Zealand's parliament voted to maintain the country's ban on nuclear-powered or nuclear-armed ships which forbids them in its ports. A representative of a small, right-wing party had proposed lifting the ban, arguing that it had cost New Zealand a free trade agreement with the U.S., but the bill was voted down. — *For Mother Earth Press*, July 15; & *Global Security Newswire*, July 28, 2005

UN Alert as Nuclear Bomb Plans & Parts Go Missing

VIENNA, Austria — Electronic drawings taken from weapons smugglers that give comprehensive details of how to build nuclear bombs have vanished and could be put up for sale on the black market, according to UN investigators.

The blueprints, running to hundreds of pages, show how to make centrifuges for enriching uranium. In addition, the investigators have been unable to trace key components for uranium centrifuge rigs.

"We have no evidence they were destroyed. One possibility is another client," said a senior UN official. "We just don't know where they are." Inspectors at the UN's nuclear authority, the International Atomic Energy Agency, have been investigating the worst nuclear smuggling racket ever uncovered, headed by Pakistani scientist Abdul Qadeer Khan who is now under house arrest. The operation was discovered two years ago to be selling sensitive nuclear technology to Libya and Iran. — *The Guardian*, June 9, 2005

UN Says Uranium in Iran Is Not Evidence of Weapons

VIENNA — The UN's International Atomic Energy Agency has found that particles of highly enriched uranium (HEU) found in Iran were from imported Pakistani equipment and not part of a secret weapons program, something Iranian officials have said for years. The Bush White House, which has declared that Iran is "evil," charged that the HEU was evidence that Iran was experimenting with nuclear weapons development. A phantom nuclear weapons program was the top scare tactic used by Bush's Administration as a pretext for its 2003 war on Iraq. Equally flimsy charges by Bush that Tehran has a weapons program were the basis for the president's recent declaration that he would not rule out a U.S. invasion. U.S. experts and a Sept. 2 UN report have confirmed the IAEA's finding, backing Iran's position.

— *Milwaukee Journal Sentinel*, Sept. 2; *New York Times*, Aug. 26 & *St. Paul Pioneer Press*, Aug. 21, 2005

Saudia Arabia Exempt From Nuclear Inspections

VIENNA — The U.N. atomic watchdog agency in June approved a deal that exempts Saudi Arabia from nuclear inspections despite serious misgivings about the arrangement in an era of increased concern over proliferation.

Although the Saudis resisted Western pressure to compromise and allow some form of monitoring, the board of the International Atomic Energy Agency signed on to the agreement.

Called the Small Quantities Protocol, the deal allows countries whose nuclear equipment or activities are thought

to be below a minimum threshold to submit a declaration instead of undergoing inspections.

— *Associated Press*, June 16, 2005

Nevada Test Site Building Sealed After Containment Chamber Fire

LAS VEGAS, Nevada — A building at the Nevada Test Site remained sealed and an investigation was under way after a gray powder burst into flames while being mechanically handled in a radioactivity containment chamber. Four workers in protective gear were inspecting and sorting transuranic [plutonium-contaminated] waste using machines inside a clear protective "glove box" when the powder caught fire. "Everything tells us the radioactivity was contained within the glove box within the building," said National Nuclear Security Administration (NNSA) spokesman Darwin Morgan. He then alluded to wider contamination saying, "It's going to be a very slow process reentering the building." The NNSA could not identify the powder, which was in a 55-gallon drum sent from Lawrence Livermore National Laboratory in California. It was being "characterized" at the Nevada Test Site for shipment to the Waste Isolation Pilot Plant near Carlsbad, New Mexico. Transuranic waste typically includes clothing, equipment and pipes contaminated with plutonium during nuclear weapons production.

— *Las Vegas Sun*, June 10, 2005

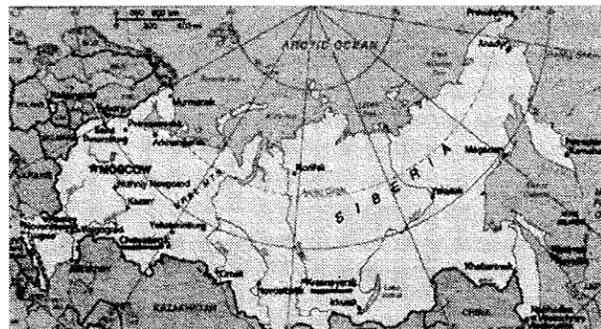
Workers, Homes, FedEx, Hit With Rad Contamination

LOS ALAMOS, New Mexico — A worker in the Los Alamos National Lab contaminated himself, his home, the homes of friends and family, co-workers, a lab in Pennsylvania and eleven of its employees, as well as a FedEx truck with americium-241. The contamination, not discovered for 11 days, was found when a package arrived at Los Alamos where improper handling spread the radioactivity. A decontamination team moved in to recover everything poisoned with the americium. The deadly isotope was found on workers' skin and in homes, cars and work spaces. Officials at Los Alamos said the amount of americium carried off site was a fraction of the radioactivity contained in a typical residential smoke detector. They claimed that the low levels of contamination found at the employees' homes didn't pose a risk. The federal EPA says americium-241 poses a significant health risk, including cancer, if inhaled or swallowed. Eleven workers handled the package sent to Pennsylvania via FedEx as a "nonhazardous, domestic unclassified shipment." Americium-241 is produced when plutonium is bombarded with neutrons inside a reactor. With a half-life of 432 years, it is radioactively dangerous for 4,320 years. The isotope is mostly used in smoke detectors.

— *Santa Fe New Mexican*, Aug. 2; *Albuquerque Journal*, July 27 & Aug. 9; & *San Francisco Chronicle*, Aug. 11, 2005

Alarm Over Russian Radioactive Waste Site

MOSCOW — Russia has approved and plans to build an international storage site for nuclear waste in spite of petitions signed by three million opponents. Aleksandr Rumyantsev, head of the Federal Nuclear Power Agency, presented the plan at a conference of the International Atomic Energy Agency (IAEA) in July. Rumyantsev said, "It is a good idea to have the facility in Russia, partly because of our space, and partly because we are the only country whose law allows it to import nuclear waste." Since 2001, the import and storage of nuclear waste from other countries has been permitted, though only temporarily. Russia imports small amounts of waste from former Eastern bloc countries



Russia is considering two sites for long-term storage of international radioactive waste, Krasnoyarsk and Chelyabinsk. Both are underlined in the map above.

including Hungary. The IAEA supports the idea and now it's a question of whether the Russian people will accept it. Two sites are being considered for long-term storage of deadly waste — the Zelenogorsk nuclear storage facility near Krasnoyarsk and the Mayak facility near Chelyabinsk, which environmentalists claim is the most radioactive place on earth after a nuclear waste disaster there in 1956.

— *Times of London*, July 15, 2005

Bechtel Corp. Settles Lawsuit Regarding Phantom Waste

RICHLAND, Wash. — Bechtel, the corporation contracted to cleanup the Hanford Reservation, agreed to pay the U.S. government \$125,000 to settle law suits over contamination that occurred as workers dug up old burial grounds at the

site in eastern Washington. Before 2004, much of the clean-up work along the Columbia River required removing soil contaminated by radioactive liquids. But when workers began excavating burial sites they found all sorts of radioactively contaminated material not listed in record books. In one incident workers unexpectedly unearthed items contaminated with plutonium, one of them an old safe containing a bottle holding plutonium-laced liquid. The safe also was contaminated with plutonium. In another situation workers found a large pile of waste that had been dug up and was being sorted. The two technicians were not wearing respiratory protection and were exposed to airborne plutonium.

— *Tri-City Herald*, Richland, Washington, Aug. 10, 2005

EPA Proposing Radiation Exposure Limits

WASHINGTON, DC — Conceding there's no way to know what life will be like in a million years, the EPA nevertheless proposed limits in August on how much radiation a person should be exposed to from a nuclear waste dump in the far distant future. The suggested exposure limit of 15 millirems (mR) a year for 10,000 years (for people near the as-yet-unworkable Yucca Mountain facility in Nevada), would be allowed to increase to 350 mR/year for up to 1 million years. The 350 mR exposure is over three times what is allowed from nuclear facilities today. A standard chest X-ray is about 10 mR. A Federal Appeals court said last year that the EPA standard — which is supposed to ensure that nearby residents won't be harmed by leaking radioactivity from the dump — was inadequate because it didn't establish exposure limits beyond 10,000 years. The court pointed out that peak radiation released from the proposed high-level waste dump would not occur until well after 10,000 years. Once the standard is made final after a comment period, the NRC will decide whether the Yucca design is adequate. Craig Stevens, a spokesman for the Energy Department, said the administration is firmly committed to pushing ahead with the Yucca project. It plans to submit a formal application for a license to the NRC next year.

— *Associated Press*, August 9, 2005

Fake Documents Got Workers Past High Security

KNOXVILLE, Tenn. — Sixteen undocumented construction workers with fake "green cards" were able to enter the Y-12 nuclear weapons complex near Knoxville, Tennessee because of poor security. The DOE was embarrassed to find that "official use only" documents were left lying around in a construction trailer accessed by the unauthorized workers. Y-12, officially known as a "National Security Complex," makes parts for nuclear warheads and is the principal government storehouse for weapons-grade uranium. It is supposedly one of the most highly secured sites in the world. The workers have been detained by Immigration and Customs Enforcement agents.

— *Guardian Newspapers*, June 20, 2005

Island Police Carry Radiation Meters

WEST TISBURY, Mass. — Police on Martha's Vineyard have begun carrying radiation meters in case of a radiation accident at the Pilgrim Nuclear Power Station in Plymouth or a nuclear calamity in New York City. The radiation monitors are the size of a contact lens case and cost \$160 each. They were donated to the police by a group called Physicians for Civil Defense. Radiation warnings come in the form of chirps, with one chirp meaning a person has about 40 hours to get to a safe place before radiation sickness would begin while a series of 10 chirps would mean a person may get sick within a few minutes. Martha's Vineyard has no highway connecting it with the mainland, and ferries head straight into any radiation that may be carried from Pilgrim by prevailing winds. — *Cape Cod Times*, Aug. 12, 2005

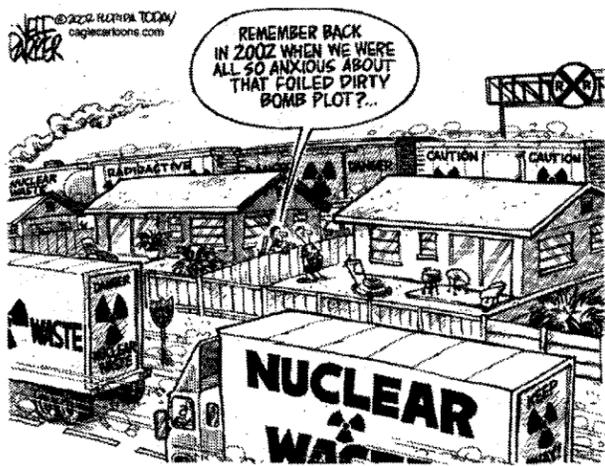
Kennedy White House Talked of Nuclear Attacks on Non-Nuclear China

BOSTON, Mass. — In May 1963, former defense secretary Robert McNamara in a meeting with President Kennedy said, about repelling a possible Chinese attack on India, "... we would have to use nuclear weapons." In newly declassified audio tapes of the discussions, Gen. Maxwell Taylor, then Chairman of the Joint Chiefs of Staff, is also heard saying, "I would hate to think that we would fight this on the ground in a non-nuclear war." The spectacular disclosure shows how dramatically different actual U.S. nuclear war plans were from the official public policy of "deterrence." Neither China nor India were threatening to attack the U.S. and neither had nuclear weapons at the time. The content of the tapes stunned Indian analysts, one of whom said, "I'm sure it will have antennae up in China."

— *New York Times*, Aug. 26, 2005

Korea's Hiroshima

SEOUL, South Korea — Thousands of atomic bomb victims at Hiroshima and Nagasaki were Korean nationals. Most were forced laborers working in Japanese armament factories. Others were landless farmers looking for work. A group called Peace Project Network aims to win compensation from Japan



for former forced laborers. Of the 50,000 Korean survivors of Hiroshima and Nagasaki, 43,000 returned to Korea.

According to Shin Jin Tae, a forced laborer in Japan at the time of the bombings, "A-bomb victims who could not hide their scars were mistaken for victims of Hansen's disease and excluded from society." Most of them ended up begging in the streets. "Their scars were gleaming in the sun. They were easy to recognize," Shin remembers. Those who were not recognized tried to stay undercover. "If you went public, you could not get married anymore," Shin said. "I had to remain silent."

"Ninety percent of those who returned to South Korea died because there was no medical treatment and no support for them," claims Kwak Kwi Hoon, president of Korea's Atomic Bomb Victim Association. In 1993, Japan paid South Korea four billion yen, or about \$36 million, in humanitarian assistance to help Korean A-bomb survivors.

— *Japan Times*, Aug. 2, 2005

Scientists Conduct Weapons Experiment at NTS

LAS VEGAS — Scientists at the Nevada Test Site and a team from Los Alamos National Lab in New Mexico along with contractor Bechtel Nevada managed to produce a pulsed-power electrical current containing 19 million amps, or roughly four times all the electrical power on earth. They created pressures in materials millions of times greater than normal as part of an experiment to "better understand nuclear weapons." The experiment used the 650-ton Atlas Pulsed Power generator. Atlas was built at Los Alamos and moved to the Nevada Test Site. — *Las Vegas Sun*, July 27, 2005

Russian and U.S. Submarine Fleets Still Growing

MOSCOW — The government has plans for new nuclear submarines, and a new submarine base will be built in the far eastern town of Viliuchinsk on the Kamchatka peninsula. Its newest strategic sub, *Juri Dolgorygiy*, now under construction, will be launched in 2006. It is to be equipped with the new "Bulava" missile, which can carry 10 nuclear warheads. Another missile-launching sub, the *Alexander Nevsky*, will be launched in 2007.

The U.S. likewise has commissioned a new nuclear-powered sub, the *USS Jimmy Carter*. It is the last of three in the *Seawolf* class and was unveiled in February 2005. The *Jimmy Carter*, with 130 crewmen, will carry torpedoes and Tomahawk cruise missiles. — *Xinhua News Agency* (China), July 29, 2005; U.S. Navy

Ohio Waste Heading for Texas

ANDREWS, Texas — Forty-five thousand pounds of radioactive waste, in 2,000 shipments aboard flatbed trucks, are headed from Ohio to Andrews, Texas, over the next 10 months. The shipments contain a mix of radioactive waste, cement and fly ash, which is to be stored in 4,000 half-inch-thick carbon steel containers. Waste Control Specialists of Dallas (WCS) won a \$7.5 million contract from Fluor Corp., the contractor cleaning up the government's Fernald, Ohio site, to store the waste in Texas. Opposition halted earlier proposals to store the waste in Utah and Nevada. The WCS site is located near the New Mexico border and at present is considered a dump. WCS is seeking to change its license to allow it to become a permanent storage facility. The Fernald site processed uranium for U.S. nuclear weapons. Each trip of 1,300 miles will take between two and four days and the trucks will be tracked by global positioning satellites.

— Associated Press, June 6 & 7; *St. Louis Post Dispatch*, June 30; & *Odessa American Online*, June 7, 2005

Radioactive Scrap Illegally Dumped in Mexico?

SAMALAYUCA, Mexico — Four mounds of radioactive scrap metal, each about six cubic meters in size, lie exposed to wind and water at the Fenix junkyard, about 50 kilometers south of El Paso. Mexican nuclear physicist Bernardo Salas Mar, a former employee of the federal nuclear power site in Veracruz who was fired after publicizing its radioactive contamination of the Gulf of Mexico, recently exposed the radioactive waste dump site.

The scrap metal is contaminated with cobalt-60, the origin of which is unclear. According to *El Universal*, some of the material came from the U.S. Energy Department's Los Alamos National Laboratory in Santa Fe, New Mexico and

was illegally trucked across the border. Some of the contaminated scrap was turned into rebar at various Mexican foundries and resold. Shipments into the U.S. were rejected and returned to the junkyard, but some of the rebar sold in Mexico has never been recovered. Talli Nauman, founder and co-director of Journalism to Raise Environmental Awareness, said, "As the world reflects on the tragedy of radiation damage from the atomic bomb explosions in Hiroshima and Nagasaki 60 years ago ... the less obvious calamity of the cobalt-60 contamination in Mexico also continues. The least society can do is admit to the mounds at Samalayuca and procure a proper burial at the site."

— Journalism to Raise Environmental Awareness, Aug. 5; *Foreign Policy in Focus*, Aug. 5; & *Herald Mexico - El Universal*, Aug. 1, 2005

Police Find Hot Container in Street

BERLIN, Germany — Police in Wiesbaden sealed off a busy street, popular for its cafes and restaurants, after a passerby discovered a small container with a radioactive warning symbol. Emergency service workers found it emitting low levels of radiation. A police spokeswoman said there were faint traces of radiation from both the metal container and a nearby trash can, but the levels were too low to pose any danger. She claimed the area had not been contaminated and no one had been exposed to radiation or needed hospital checks. Residents were told to stay indoors while specialists examined the container and dustbin. Police were working on the theory that the low-level radioactive material could have come from a hospital. — Reuters, June 30, 2005

Sellafield Leak Could Result in Criminal Charges

CUMBRIA, England — The Sellafield engineering facility was temporarily closed in June when a fractured pipe leaked a total of 83 cubic meters of nitric acid containing 22 metric tons of dissolved uranium and plutonium. A new report says that the leak went undetected for eight months. According to the British Nuclear Group, inspectors repeatedly failed to spot the leak in spite of routine safety checks.

The report claims that the leak could not have been prevented, but asserts that the amount of liquid released could have been greatly reduced. The nitric acid leaked onto the floor of a closed concrete cell. No workers were contaminated as a result of the pipe fracture. The acid is being pumped into storage tanks. The area, on the Irish Sea in east central England, is so highly radioactive that pipe repairs must be made using robots. Safety regulators have indicated the negligence could result in criminal charges.

The accident will cost Britain's clean-up program at least \$540 million in lost revenue this year alone. The crippled \$3.2 billion Sellafield plant was supposed to make \$4.5 billion over five years to help fund the clean-up of past wastes, but cannot contribute anything while closed.

— *Scotsman*, June 12, & *The Guardian Unlimited*, June 13, 2005

Radioactive Spills Probed at Submarine Base

DEVONPORT, England — Investigations are underway regarding two spills of radioactive liquid at the Devonport Royal Dockyard Limited in Plymouth, where the Royal Navy nuclear submarine, *HMS Victorious*, is being refitted. Between 16 and 20 liters of radioactive water containing cobalt-60, dangerously radioactive for 52 years, was spilled into the loch. A liter of the same liquid leaked from pipework three days earlier.

— *Scotsman.com News*, June 14, 2005

Retaining Wall Built With Nuclear Waste

READSBORO, Vermont — A 250-foot retaining wall behind the Readsboro General Store was built with radioactively contaminated concrete blocks from the now-closed Yankee Rowe nuclear reactor. Tests of the retaining wall, conducted in February by the state health department about four years after the wall was built, show it to be contaminated with tritium, a radioactive form of hydrogen.

Although state and federal officials claimed the contamination poses no health risk, tritium has a radioactive half-life of 12.3 years. It remains dangerously radioactive for 120 years. The wall was built with 35 large, interlocking concrete blocks taken from the reactor building at Yankee Rowe. The site is three miles from Readsboro in Bennington County. The blocks were once part of a concrete shield around the reactor core.

The blocks were taken from the site — with the company's permission — by an employee, Tom Dente, who owns the Readsboro General Store. "It made a beautiful retaining wall; it was the cheapest thing I could build," Dente said.

The reactor's owner, Yankee Atomic Electric Co., conducted initial tests on the blocks in 1999 as part of a decommissioning that is only now being finished. After intensive sandblasting and cleaning, tests done at Yankee Rowe showed the blocks to be free of radioactivity, according to the company and the NRC. Some of the blocks were then used for the retaining wall. Later tests at the reactor done in 2004 found tritium contamination and prompted the testing of the retaining wall in 2005. — *Rutland Herald*, June 15, 2005



Raw, Unmarked Nuclear Scrap Retrieved in Russian Port

VLADIVOSTOK — Unshielded scrap metal entering Russia's far eastern port of Vladivostok Aug. 25 was so radioactive that, "If a person holds such a source in their hand for two minutes, the hand will then have to be amputated. Longer contact with such a source is fatal," according to Vitaly Aldanov, head of Primtekhnopolis, a company that collects and buries radioactive waste. The unmarked lead industrial equipment was contaminated with cesium-137, and was being transported by truck. The metal emitted 220 roentgen per hour, a rate thousands of times higher than normal background. Primtekhnopolis employees said they found 89 radioactively contaminated "spare parts" in the previous week. Primtekhnopolis will bury the material, Aldanov said.

— *RIA Novosti*, Russian News & Info. Agency, Aug. 26, 2005

Nuclear Fiction: "Environmentalists for Nukes"

WASHINGTON, DC — "Despite the well-publicized opinion of a few environmentalists — including Greenpeace co-founder Patrick Moore, *Whole Earth Catalog* founder Stewart Brand and Gaia theorist James Lovelock — that the environmental community should reconsider nuclear power in order to address climate change, there is no evidence to indicate a groundswell of support for building new nuclear reactors," report Brendan Hoffman and Michele Boyd in the July/August issue of *Public Citizen News*. "Not a single environmental or consumer group is advocating that new nuclear plants be built."

Scientists estimate that between 1,000 and 2,000 new nuclear reactors will have to be built worldwide by mid-century to make any noticeable reduction in the expected increase in carbon dioxide emissions. If so many reactors were built, the world would generate about five times as much high-level nuclear waste as it does now, necessitating the building of a new Yucca Mountain-sized dump site every three or four years. The CO2 released world-wide through electricity production accounts for only nine percent of total annual human greenhouse gas emissions. The remaining greenhouse gases come from transportation and deforestation. Uranium enrichment (for reactor fuel) produces 93 percent of the CFC emissions annually in the United States.

"Nuclear power remains fatally flawed. Cost, safety, security, waste and proliferation are all unsolved issues. Any one of these (problems) by itself would be reason enough to toss the nuclear idea out the window. Considering all five, it's just loony," said Winona Hauter of Public Citizen.

— *Public Citizen News*, July/August 2005

RESOURCES

- * Alliance for Nuclear Accountability, 1914 N 34th St., #407, Seattle, WA 98103, (206) 547-3175; Web: ananuclear.org
- * Citizens for Peace in Space, PO Box 915, Colo. Springs, CO 80901, (719) 389-0644
- * Citizens' Nuclear Information Center, 3F Kotobuki Bldg. 1-58-15, Higashi-Nakano, Nakano-ku, Tokyo 164-0003, Web: cnic.jp/english; Email: cnic@nifty.com; Web: cnic.jp/english
- * Concerned Citizens for Nuclear Safety, 107 Cienega Street Santa Fe, NM 87501; (505) 986-1973; Web: nuclearactive.org
- * Earth Island Journal, 300 Broadway, #28, San Francisco, CA 94133, (415) 643-3666; Web: earthisland.org
- * Environmental News Service, Email: editor@ens-news.com; Web: ens-newswire.com
- * Government Accountability Project, 1612 K Street NW, #1100, Washington, DC 20006, (202) 408-0034; Email: gapdc@whistleblower.org; Web: whistleblower.org
- * Institute for Environmental and Energy Research, 6935 Laurel Ave., Suite 201, Takoma Park, MD, 20912, (301) 270-5500; Email: ieer@ieer.org; Web: ieer.org
- * Journalism to Raise Environmental Awareness, Whitewood, SD; (605) 269-2206; Email: talli@direcway.com; & Aguascalientes, Mexico; (449) 974-5761; Email: balam56@yahoo.com
- * Keep Yellowstone Nuclear Free, PO Box 4757, Jackson, WY 83001 (307) 413-8679; Email: kynf@yellowstonenuclearfree.com
- * The Nuclear Resister, PO Box 43383, Tucson, AZ 85733, (520) 323-8697; Email: nukeresister@igc.org
- * New Mexico Environmental Law Center, 1405 Luisa St., #5, Santa Fe, NM 87505, (505) 898-9022; Email: nmeic@nmeic.org; Web: nmenvirolaw.org
- * Nuclear Information and Resource Service, 1424 16th Street NW, #404, Wash., DC 20036, (202) 328-0002; Email: nirsnet@nirs.org; Web: nirs.org
- * Oak Ridge Environmental Peace Alliance, PO Box 5743, Oak Ridge, TN 37831; (865) 483-8202; Web: stopthebombs.org; Email: orepa@earthlink.net
- * Physicians for Social Responsibility, 1875 Conn. Ave. NW, Washington, DC 20009, Email: psrnatl@psr.org; Web: psr.org
- * Portsmouth/Piketown Residents for Environmental Safety, 3706 McDermott Pond Creek, McDermott, OH 45652, (740) 259-4688; Email: vcolley@earthlink.net; Web: downwinders.org
- * Public Citizen, 215 Penn., SE, Washington, DC 20003, (202) 454-5185; Email: CMEP@citizen.org; Web: citizen.org
- * Radiation and Public Health Project, 302 W. 86th Street, # 11B, New York, NY 10024, (800) 582-3716 or (610) 666-2985; Email: odiejoe@aol.com; Web: radiation.org
- * Snake River Alliance: Boise, 104 S. Capitol, PO Box 1731, Boise, ID 83701, (866) 891-0178; Web: snakeriveralliance.org; Email: sra@snakeriveralliance.org
- * Shundahai Network, PO Box 1115, Salt Lake City, UT 84110, (801) 533-0128; Email: shundahai@shundahai.org; Web: shundahai.org
- * Wisconsin Nuclear Watchdog, Email: info@wnwd.org; Web: wnwd.org
- * World Information Service on Energy, P.O. Box 59636, 1040 LC Amsterdam, The Netherlands, Email: wisemster@antenna.nl; Web: antenna.nl/wise

Nuclear Relapse by Bush & Co.

By Bonnie Urfer

The nuclear industry's new cheerleader, George W. Bush, toured the control room of the Calvert Cliffs nuclear site in June and reviewed plans for a new reactor to be built by Constellation Energy along the Chesapeake Bay. He announced nuclear power is a "domestic, clean and prolific source of energy" for the U.S. Never mind that uranium for reactor fuel is nearly all imported. Bush was preparing taxpayers for the \$10 billion corporate welfare program

The 2005 Energy Bill

The 2005 Energy Bill grants subsidies and tax breaks to the nuclear power industry totaling more than \$10 billion. The bailout of the otherwise dying industry includes taxpayer-backed loan guarantees, construction delay cost write-offs, and insurance benefits. Reactor operators will get \$5.7 billion of the allotment for production tax credits and \$4.4 billion in other subsidies.

Accident liability for reactor owners is capped by the Price-Anderson Act, which has been reauthorized and extended to include reactors that may be built in the next 20 years. The Act requires reactor operators to purchase private insurance (currently about \$300 million) and some coverage from ratepayers totaling about \$10 billion. In the event of a catastrophe, costs above the \$10 billion cap are to be paid by federal taxpayers. Liability for even a single major accident is estimated to be up to \$600 billion.

In the Bill, production tax credits are 1.8 cents per kilowatt hour of electricity from new reactors during the first eight years of operation. Nuclear power production is included in the production tax credit formerly given only to renewable energy systems — because the White House wants nuclear energy to be seen as "green."

There's a race to build the first six reactors since they will receive the best subsidies. The Energy Bill offers new reactor investment protection to offset the financial impact of delays beyond the industry's control. The first six reactors to be built are guaranteed coverage during construction and during the initial phase of reactor startup. The Bill provides for 100 percent coverage of the cost of delays for the first two reactors, up to \$500 million each, and 50 percent of the cost of delays, up to \$250 million each, for reactors three through six. "Standby" support covers delays caused by the Nuclear Regulatory Commission and litigation. It includes

called the Energy Policy Act of 2005, or energy bill, which was signed into law this summer. Bush's speech avoided any mention of the deplorable safety record of U.S. reactors, the fact that there are no means of indefinitely isolating long-lived radioactive wastes, that the full cost of nuclear power cannot be tallied because bills for waste management will be coming in for a thousand generations, and that without billions of tax dollars in subsidies, the nuclear power industry is dead in the U. S.

principal or interest on any debt associated with the project and coverage of losses to the company if they must buy power on the open market.

The Bill authorizes the energy secretary to provide loan guarantees to support the development of innovative energy technologies "that avoid, reduce or sequester air pollutants or anthropogenic emissions of greenhouse gases." Under the Bill, these technologies include nuclear reactors, renewable energy, coal gasification and hydrogen fuel-cell technology. The loan guarantee can be up to 80 percent of the project cost. Full repayment must be made within 30 years, or 90 percent of the project's life. This could cost taxpayers up to \$2.5 billion per reactor with no guarantee of reimbursement.

The Energy Bill authorizes more than \$432 million over three years for nuclear energy research and development, including the Department of Energy's Nuclear Power 2010 program. Taxpayers will cover half the cost of applications for new reactors, as much as \$87 million per reactor.

Plans are afloat to build a test reactor in Idaho intended to produce hydrogen fuel — touted as the clean fuel of the future. However, using nuclear power to produce hydrogen fuel is hardly a safe, effective or an environmentally sound proposition. The cost to taxpayers is \$1.2 billion. In addition, there is a \$100 million authorization for study and experiments in hydrogen production at two existing nuclear reactors.

The Bill also creates an assistant energy secretary for nuclear issues at the DOE.

The nuclear industry has enjoyed billions of dollars in subsidies. It has received 56 percent of federal energy research and development funding up to 1998, taxpayer bailouts in the 1980s, and capped insurance rates and limited liability for the most dangerous industry on earth.

Reactors Plagued With Problems

Reactors around the world have been beleaguered with problems and radioactive releases. The following is a very limited list of incidents that occurred in 2005.

▼ One hundred gallons of fuel oil seeped from a storage tank into a lined containment area at the Oyster Creek nuclear power reactor on June 10. The oil that fueled a combustion turbine apparently expanded due to the day's high temperature and then seeped through the tanks vent holes. It didn't affect the nuclear generating operation. Oyster Creek is located 60 miles east of Philadelphia.

▼ AmerGen declared an emergency alert at Oyster Creek on August 8 when an area storm caused accumulated grass to reduce the amount of intake water used for cooling the reactor. The reactor's power level was reduced to 43 percent of capacity and restored to full power three days later.

▼ One of the Turkey Point reactors was taken off-line on June 27 when a fire caused a small leak of 30 to 40 gallons of mineral oil used to cool a transformer. The nuclear machinery was not affected, according to an AP report. Turkey Point is located about 25 miles south of Miami.

▼ A Swedish nuclear power station leaked huge amounts of radioactive waste into the Baltic Sea, according to the *Guardian* of London. The Forsmark reactor, north of Stockholm, leaked cesium after storage tanks for low and medium-level radioactive waste corroded. Swedes voted in a referendum in 1980 to phase out nuclear power but an argument ensues over reactor operating extensions.

▼ The Millstone Unit 3 reactor in Connecticut released an "insignificant" amount of radioactive liquid and steam and shutdown as a result of an electrical short in April. After extensive study, the short was blamed on a "tin whisker" found on a "digital logic card" that had signaled an unsafe drop in pressure and a break in a steam line in the reactor's steam system. The reactor was not restarted for two weeks. It took a magnifying glass to find the faulty filament. NRC spokesman Neil Sheehan said the "whisker" could prevent a safety system from working properly. Four of 103 circuit cards at Unit 3 had tin filaments and were replaced. The NRC charged the reactor's owner, Dominion Nuclear of Connecticut, Inc., with insufficient diagnosis of the problem and poor communication. The three factors created unnecessary risks, according to the NRC.

▼ A fire that took more than 10 minutes to extinguish broke out in a "radiologically controlled" area of the Cooper reactor operated by Nebraska Public Power District near Brownsville. On July 13, the NRC met with the company to discuss its failure to report the incident as an "Unusual Event."

▼ One of three Palo Verde reactors near Wintersburg, Arizona was shutdown due to a crack that allowed oil to leak from a seal on a coolant pump used to push water from the reactor to the steam generator. Located 50 miles west of Phoenix, Palo Verde was the only reactor site in the nation this year to be fined \$50,000 after inspectors found air in emergency cooling pipes. Palo Verde has been plagued with recurring leaks. On June 27, a Notice of Violation was issued to its operators, the Arizona Nuclear Power Project, for making an emergency plan change that decreased the plan's effectiveness. The change was made without NRC approval.

▼ The Fitzpatrick reactor near Oswego, New York, has had two cracks. The first, found on June 30, was in a water tank used as a backup cooling system. The second, measuring 6.5", allowed oil in the cooling system to leak. "The danger with a crack like this is that it could complicate a shutdown of the reactor," said NRC spokesman Neil Sheehan.

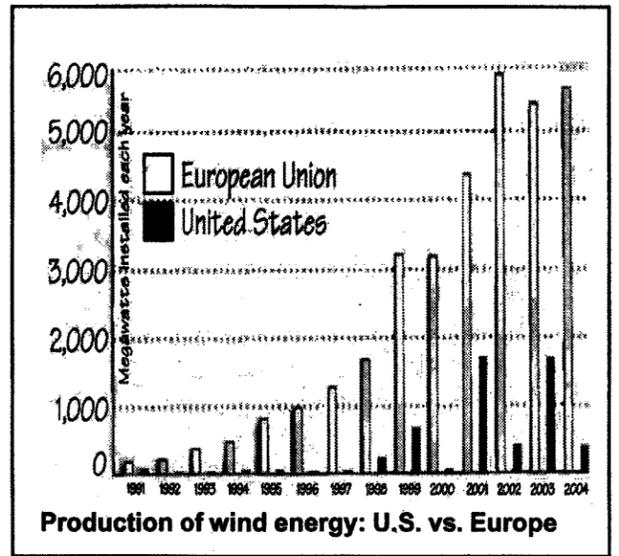
▼ In its latest mishap, the Hope Creek reactor near Salem, New Jersey leaked radiation this June from a main steam isolation valve. The owner, Public Service Enterprise Group, said the amounts were very low and posed no threat to employees or the public. It was the fourth leak since last October and the second in a two week period.

▼ One of Salem Creek's two reactors, also in New Jersey, had a radiation leak June 7 caused by malfunctioning controls on a heat removal system valve. Three of New Jersey's four reactors share the same 700-acre site. Salem Creek is under heightened federal scrutiny for equipment problems, operational mishaps and work environment complaints. Kymn Harvin, the facility's former organizational manager, says she was fired for raising safety concerns and she has since filed a whistleblower lawsuit.

▼ The NRC issued a violation notice against Three Mile Island in Harrisburg, Penn., owned by Exelon, site of one of the nation's worst radiation disasters, and placed its operator (AmerGen Energy Co.) on probation for neglecting to retrain 50 percent of their emergency responders.

▼ On May 5, a Notice of Violation was issued to Davis Besse in Ohio for failure of its emergency evacuation zone sirens. The violation cited FirstEnergy Nuclear Operating Company failure to implement the means to provide early notification and clear instruction to the populace within the likely radiation plume's exposure pathway.

▼ A control room operator was found asleep on July 14 at the Pilgrim reactor operated by Entergy Nuclear Generation



The U.S. lags far behind the European Union in the production of wind energy.

Company near Plymouth, Massachusetts. According to the NRC the operator was not in a condition to appropriately respond to a reactor emergency.

▼ In June, a leak of radioactive water from a pool used to cut up irradiated fuel rods occurred at the Japanese reprocessing facility operated by Japan Nuclear Fuel Ltd. in Rokkasho. The reprocessing site has been plagued with problems, including 291 faulty welds and the improper use of stainless steel metal sheets in the pool which has been blamed for the recent release of radiation.

▼ Near Philadelphia, Penn., the cooling tower for the Limerick reactor owned and operated by Exelon shut itself down July 18 due to a trip in the facility's electrical distribution area. It was the second shutdown this year. The first occurred after Unit 2 had high temperature readings on a damaged turbine bearing.

▼ An electrical problem shut down the Vermont Yankee reactor near Vernon July 27. The problem was blamed by the owner/operator, Entergy Nuclear, on a broken electrical insulator in the facility switch yard.

▼ An experimental reactor called the Southwest Experimental Fast Oxide Reactor, built in 1969 at Strickler, Arkansas, was shut down in 1972. Today it contains radiation, lead, asbestos, mercury and explosive chemicals that threaten the local environment. Cleanup is expected to cost up to \$16 million and take four to five years.

▼ A magnitude 7.2 earthquake that hit the Tohoku Region of Japan Aug. 16 caused three reactors at Tohoku Electric's Onagawa site in northern Japan to automatically shut down. The impact on the reactors exceeded design specifications. The company dismissed the earthquake's stress and claimed their reactors could withstand an even larger earthquake. Operations at the site have been suspended pending an assessment of the reactors' condition. The quake caused radioactive water to leak from the storage fuel pools at the Number 2 and Number 6 reactors of the Fukushima I site. Operators there said the radioactive water did not leak outside the facilities.

A Nuclear Future?

Around the world, nuclear reactor sales are up. China, with nine in operation today, plans to build 30 new ones within 15 years. India is building eight.

In the U.S., the country's 103 aging reactors show more and more signs of stress and embrittlement and are running out of on-site storage space for radioactive waste. It is easy to see why *Forbes* magazine said 20 years ago, "The failure of the U.S. nuclear power program ranks as the largest managerial disaster in business history, a disaster on a monumental scale. The utility industry has already invested \$125 billion in nuclear power, with an additional \$140 billion to come before the decade is out, and only the blind, or the biased can now think that most of the money has been well spent. It is a defeat for the U.S. consumer and for the competitiveness of U.S. industry, for the utilities that undertook the program and for the private enterprise system that made it possible."

White House propaganda aside, the business community is largely skeptical of nuclear reactor economics. While Dominion Corp. has asked for a siting permit for new construction at North Anna, in Virginia, its chairman, Thomas Capps, told the *New York Times* Apr. 30, "We aren't going to build a nuclear plant any time soon. Standard & Poor's and Moody's would have a heart attack," referring to the debasing agencies, "and my chief financial officer would too."

Still, some companies are testing the water. NuStart Energy is pursuing the possibility of building an advanced nuclear reactor at Bellefonte in northeast Alabama. Exelon is seeking an early site permit for a reactor at its Clinton, Illinois, site. Entergy Corp. is seeking early approval for expanding generation at its Grand Gulf Nuclear Station in Port Gibson, Mississippi.

Peter Bradford, a retired member of the NRC and former head of public service commissions in New York and Maine, said in April that predictions of a nuclear revival had "rivaled — in frequency and accuracy — forecasts of the second coming, but the technology is still uneconomic."

Gary Taylor of Entergy, which owns 10 reactors, put it mildly when he told the *New York Times*, "the industry needs financial help."

Strontium in Baby Teeth Raises Alarm

By Kathryn Casa
Vermont Guardian, Aug. 28, 2005

BRATTLEBORO — High levels of a cancer-causing radionuclide found in nine baby teeth collected from children who live near the Vermont Yankee nuclear reactor near Vernon have prompted activists to seek at least 100 more teeth for further testing.

Preliminary findings of a study by the Radiation and Public Health Project (RPHP) show the average strontium-90 (Sr-90) concentration in baby teeth collected from Windham County in Vermont and Cheshire County in New Hampshire to be 61 percent higher than 17 baby teeth from other counties in Vermont and New Hampshire, according to Agnes Reynolds, a nurse and RPHP volunteer from Hartford, Connecticut. RHP is a New York-based group of scientists and medical professionals that examines links between low-level radiation and public health.

The teeth from counties surrounding Vermont Yankee showed an average of 4.2 picocuries (a measure of radiation) per gram of calcium, compared to 2.65 picocuries in teeth from other areas in Vermont, Reynolds said at a press conference Aug. 23 in Brattleboro.

A spokesman for the NRC said that the agency has no recommended "acceptable" radiation levels for specific body parts. The NRC calculates radiation based on whole-body doses, he said.

Acknowledging that nine teeth is not a significant sampling, Reynolds said "100 teeth will produce meaningful results."

RPHP will focus their "Tooth Fairy Project" on the Vermont Yankee region because the reactor is the 11th oldest in the country. It's owner, Entergy Corp., is seeking to increase power there by 20 percent, and boiling water reactors typically release higher levels of radioactivity than pressurized water reactors, according to a press release from RPHP.

The results of RPHP studies, of more than 4,000 baby teeth, mostly from areas near seven nuclear power reactors around the country, showed Sr-90 levels 30 to 50 percent higher than average, Reynolds said. The results have been published in four journals.

Suit Blames Childrens' Cancer on Rad Waste

WEST PALM BEACH, Florida — Thousands of gallons of radioactive sludge were shipped daily from the St. Lucie nuclear reactor complex to municipal sewage treatment plants, ordinary landfills and other unknown locations in the late 1970s, creating a cancer risk throughout the community here, an attorney who's suing the site operator contends. Nancy La Vista said she can prove that errors in handling nuclear waste by Florida Power & Light (FPL) caused the brain cancer of at least two children. She represents the parents of 11-year-old Zachary Finestone, who was diagnosed with brain cancer in March 2000, and Ashton Lowe, who had brain cancer when he died at age 13 in May 2001. State health officials previously reviewed a potential cluster of childhood cancers in St. Lucie County, where both boys had lived, after discovering 29 cases of brain and central nervous system cancer from 1981 to 1997.

Fishermen Block Reactor Site Survey

YAMAGUCHI, Japan — In June, fishermen from the town of Kaminoseki blocked a seabed geological survey for a planned Chugoku Electric Power Co. nuclear power station.

The fishermen blocked the survey by surrounding two offshore platforms with about 50 fishing boats.

Chugoku Electric Power tried to negotiate with the fishermen who refused to move their boats. The blockade prevented the platforms from being moved to the site of the seabed drilling study some 200 meters offshore.

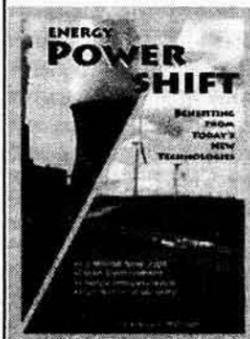
The fishermen claim the planned reactor on the shore of the Seto Inland Sea in south-central Japan would destroy the environment and their livelihood.

— *Japan Times*, June 22, 2005

ENERGY POWER SHIFT

by Barry J. Hanson

Let the revolution begin. An analysis of the science, engineering, economics and politics of a renewable energy economy explodes the myth of "too costly or impractical." A complete transition can be done today with technologies and resources that are now available.



\$16.95
Mention that you're a friend of Nukewatch and get a 20% discount.
(\$13.56 + \$2.00 shipping)

Lakota Scientific Press
3194 S. Smith Creek Road
Maple, WI 54854
(800) 945-5782

www.energypowershift.com

"There are different levels of scientific journals" (sic) said NRC spokesman Neil Sheehan. He said the NRC monitors the radiation releases at all of the nation's nuclear reactors and that Vermont Yankee's levels consistently comply with NRC standards.

"We raise concerns about the methodologies used by the Tooth Fairy Project," said Sheehan. Among the agency's questions about the project, he said, are that the group has failed to establish control populations for their studies; they have not examined other risk factors such as background radiation levels; they have used small sample sizes to draw general conclusions and have not submitted the data for rigorous peer review."

RPHP activists acknowledged the shortcomings of their studies, and said they are hampered by the high cost of the lab work. It costs \$72 to analyze each tooth, noted Sunny Miller, executive director of the Traprock Peace Center in Deerfield, MA.

"The average Sr-90 levels found in these nine baby teeth raises a little red flag," said Reynolds, and indicate the need for further analysis. Vermont State Sen. Jeanette White, D-Windham County, who was present in the audience at the press conference, said she would look into the state's role in monitoring the levels through the Department of Health, which oversees both the radiation protection program and early childhood services.

Deb Katz, executive director of the Citizens Awareness Network based in Shelburne Falls, Mass., said it's very difficult to get government agencies involved, noting that even after the Massachusetts Health Department agreed to conduct three studies to investigate high rates of cancer and other diseases around three nuclear [reactors], state officials never pinpointed radiation from the reactors as the cause of the cancers.

"But you can ask the people suffering in nuclear communities whether the reactor has affected them and you will hear time and again that they believe it has," Katz said.

Those interested in collecting or donating baby teeth should contact RPHP at: <odiejoe@aol.com>; or get more information at: (800) 582-3716

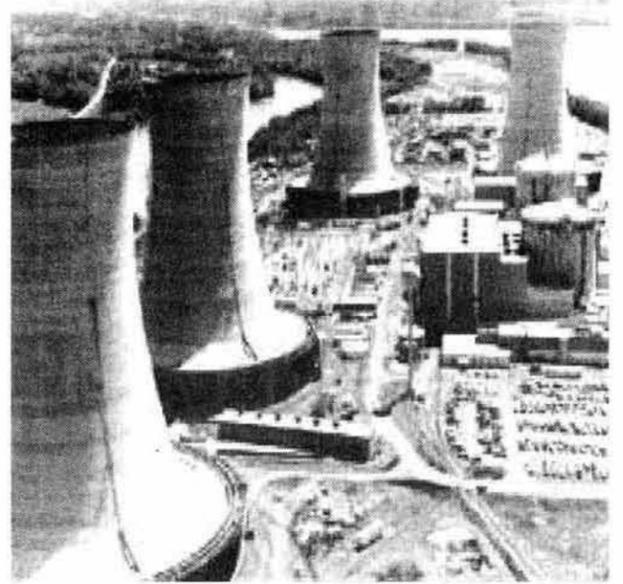
La Vista points to other tests that showed unusually high levels of radioactive strontium in the boys' baby teeth. The trials in the civil lawsuits could begin early next year.

FPL said that on two occasions it mistakenly shipped radioactive wastes to farmland about 10 miles west of the St. Lucie reactors near Ft. Pierce. Those incidents were reported when FPL discovered the problem in 1982, a decade before the boys were born. The utility immediately cleaned up the site at Glades Cutoff Road, removing six inches of soil from a contaminated 20- by 30-foot area. The radioactive material was shipped to a nuclear waste repository in Barnwell, South Carolina. *The New York Times* cited records showing FPL workers used a sink to wash mops, rags and other heavily contaminated materials, believing that the drain was connected to the reactor's radioactive waste system. Instead, it drained into a municipal sewage system.

— *Sun-Sentinel.com*, Aug. 11; *Ft. Pierce Tribune*, Aug. 9; & *Palm Beach Post*, Aug. 9, 2005

U.S. Campaign to Free Mordechai Vanunu Closes

Mordechai Vanunu and campaign coordinators have agreed to end the U.S. Campaign to Free Mordechai Vanunu. Vanunu, still under house arrest in Israel, spent 18 years in prison, most of his time in solitary confinement, for blowing the whistle on Israel's nuclear weapons program. Sam Day started the U.S. Campaign to Free Mordechai and when he passed away, Felice Cohen Joppa of Tucson, AZ, carried it forward. You can visit his website at vanunu.com and the British Campaign's website at vanunu.co.uk



An aerial view of Three Mile Island with its damaged #2 reactor. No one working during the 1979 partial meltdown had received detailed technical training on how to handle complex reactor emergencies. The NRC recently issued a violation notice to TMI's owner Exelon and placed the operators, AmerGen Energy Company, on probation for neglecting to retrain 50 percent of their emergency responders.

Efficiency 7-Times as Effective as Nuclear in Cutting Emissions

SYDNEY — If nuclear power supplied 75 percent of the world's electricity, it would result in only a 25 percent reduction in harmful carbon emissions, the head of Greenpeace International has warned.

In Australia to address the Lowy Institute June 14, GI's executive director Gerd Leipold said, "It's good that people are taking climate change seriously and understand that we need to take drastic measures, but [nuclear's] simply not the answer that we need at this moment."

Leipold said nuclear power, produced by 450 reactors currently, supplies about 17 percent of the world's power. It would take up to 10,000 reactors worldwide to increase supply to 50 to 75 percent by 2100, he said.

With all the accompanying problems of sourcing uranium, disposing of waste safely and finding new sites for reactors, it would result in only a 25 percent reduction of carbon emissions.

Countries that rely heavily on nuclear power — such as France and the U.S. — still struggle to meet their carbon dioxide emission targets, Leipold said. "Our research shows that every \$1 spent on energy efficiency is seven times more effective in cutting carbon than nuclear power."

— *The Australian*, June 14, 2005

NUKEWATCH PATHFINDER

The *Pathfinder* is the quarterly newsletter of Nukewatch, a project of The Progressive Foundation, a 501(c)(3) non-profit organization founded in 1981 by Samuel H. Day, Jr.

Progressive Foundation Board of Directors

John LaForge, Jeff Peterson, Molly Mechtenberg-Berrigan, Michele Naar-Obed, Beth Preheim, Bonnie Urfer & Gail Vaughn
Nukewatch Staff
Bonnie Urfer, John LaForge & Molly Mechtenberg-Berrigan
Volunteers
John Bird, Jeff Peterson, Maurice Thaler, Gail Vaughn, Jane Hosking & John Heid, Linda Miles, Jerry Mechtenberg-Berrigan, Paul Vos-Benkowski

Write us. *the Pathfinder* submission deadlines are: Nov. 15, Feb. 15, May 15 & Aug. 15.
Suggested subscription donation: \$25/yr.

The Progressive Foundation & Nukewatch

P.O. Box 649, Luck, WI 54853
Phone: (715) 472-4185; Fax: (715) 472-4184
Email: nukewatch@lakeland.ws
Web: nukewatch.com

We send a special thanks to Arianne Peterson for her help as our intern this past summer. Arianne is a junior at Arizona State University-Tempe.

Nuclear France

By Bonnie Urfer

International Thermonuclear Experimental Reactor

After an international competition for the contract, France has been chosen as the site for the world's first large-scale, nuclear fusion reactor, dubbed the International Thermonuclear Experimental Reactor (ITER). A six-member consortium that includes the U.S., Russia, China, Japan, South Korea and the European Union made the selection. Japan agreed to relinquish its bid for the reactor in exchange for a \$1 billion materials testing center and for being the site of a second ITER if one is ever built. Japan will also be awarded 20 percent of the jobs and construction contracts at ITER, as well as the post of director general.

The experimental reactor will be built at Cadarache in southern France for the purpose of proving that fusion can be an economical energy source. The consortium expects ground at the French site will be broken in 2008 with reactor operations starting in 2016. Fusion-generated electric power cannot be expected before mid-century.

Making fusion feasible requires figuring out how to recreate sun-like conditions on earth. The process uses deuterium and tritium, and the science behind the project presents immense technological challenges, since fusing together atomic nuclei requires a gas field heated to 100 million degrees inside an intense magnetic field. The hard part is containing the hot gas. ITER will utilize a giant doughnut-shaped magnetic field to confine the gas. Success of the reactor will be measured in its production of tritium. As neutrons thrown off from the fusion reaction strike lithium

atoms lining the reactor chamber, they produce tritium. The goal is to produce more tritium than is used.

ITER estimates that construction and operating costs will run upward of \$12 billion. France and the European Union are to cover half the cost with the remaining five nations paying 10 percent each. The consortium has spent \$700 million on scale models that have convinced engineers it will work. The actual cost will be much higher by the time the reactor is completed. Yet to be worked out is an agreement on construction and operation of the reactor so that work can begin next year. Construction predictions put completion of the project much further out since suppliers and highly technical components will come in from many countries.

Summer stress on France's operating reactors

This summer stressed France's 58 nuclear reactors as temperatures rose across the country. Europe has been experiencing an unprecedented drought since last year. The reactors provide 80 percent of the country's energy. In June, Electricite de France was on the verge of shutting



A convoy of Department of Energy trucks loaded with MOX fuel leaves the Charleston Naval Weapons Station in South Carolina. The mixture of plutonium and uranium is destined for the Catawba reactor in South Carolina as a test fuel. - Greenpeace photo.

off the Tricastin reactor located in southeast France on the Rhone River because discharge water surpassed 77°F, the maximum allowed under the country's environmental laws. By early summer of this year, temperatures of 95°F were reported with Rhone River temperatures at more than 68°F.

In 2003, when France suffered a record-setting heat wave, several reactors needed to be shut down including the country's oldest, Fessenheim, where workers used high-pressure hoses on the reactor's exterior walls to help keep it cool. Because so many other reactors faced similar conditions, environmental laws were thrown out the window and heated waste water was allowed into rivers.

Again this summer, water in the Vienne River has slowed to a trickle, resulting in rationing. The Civaux reactor sits on the Vienne and takes in 350,000 cubic meters of water a day when in full operation.

French antinuclear activists with Sortir de Nucléaire have filed several complaints in French courts, charging that nuclear authorities have violated their own environmental and safety standards.

France processes, shuttles MOX for U.S. reactor

In October 2004, 275 pounds of military plutonium was shipped by the DOE from Los Alamos, New Mexico — via the Charleston Naval Weapons Station in Virginia and the French port of Cherbourg — to Cadarache in southeast France, for reprocessing into experimental civilian MOX (mixed oxide) reactor fuel. This was the first time the U.S. shipped weapons grade plutonium to France.

Now the MOX fuel rods, made up of plutonium and uranium, have been returned, via the Cogema reprocessing factory in northwest France and Cherbourg to the Charleston Station. The MOX was moved to the Catawba reactor in South Carolina after hasty approval was granted by the NRC.

Energy Department trucks, normally used to haul nuclear weapons, transported the MOX to Catawba.

French activists protested the shipments of weapons-grade plutonium when it arrived at Cherbourg for transport to Cadarache. The volume of highly radioactive material was enough to produce 15 to 20 atom bombs of the size dropped on Nagasaki 60 years ago.

Fourteen nations possess a cumulative total of 235 metric tons of plutonium, enough to make 40,000 20-kiloton bombs. That amount grows by five to 10 tons per year. The U.S. and Russia signed a disarmament treaty in 2000 calling for their excess military plutonium (50 tons) to be either buried or converted to MOX. Both countries have opted to use all excess plutonium for MOX.

The U.S. plans to construct its own \$2.2 billion MOX fuel fabrication facility in South Carolina. A U.S. subsidiary of the French company Areva is waiting in the wings to begin construction, a process being delayed by law suits.

France's Cadarache facility, which reprocesses waste fuel to extract plutonium, was found in 2002 to have "an unacceptable amount of material unaccounted for," according to *Nuclear Fuel*, a trade publication.

French nuclear forces

France currently has two nuclear weapons systems: submarine-launched ballistic missiles carried by nuclear-powered submarines and medium-range air-to-surface missiles, carried by Mirage 200N and Super Etendard war planes.

According to the *Bulletin of the Atomic Scientists*, France's 60 Mirage jets carry a total of fifty 300-kiloton warheads. Its 10 Super Etendards carry 10 of the same warheads. Its four ballistic submarines are armed with 288 warheads of 100-kilotons each.

Though France is a party to the Nuclear Non Proliferation Treaty and is bound by its promise of disarmament, the government shows no signs of giving up its nuclear arsenal.

A new five-year military plan, adopted in September 2002, allots about \$4 billion for nuclear weapons with \$2.3 billion of that designated for the submarine program.

Navajos Ban Uranium Mining

By Winona LaDuke

Navajo (Dinés) who have lost family members from radioactive contamination — and those fighting new proposals for uranium development — celebrated the passage April 19 of the Diné Natural Resources Protection Act of 2005. Navajo Tribal Chairman Joe Shirley's signing of the act into law signaled a bold step in protecting the arid southwest's most precious natural resource — water — from mining contamination. The act bans all uranium mining and processing anywhere on the Navajo Reservation.



The Navajo Nation's new law passed as the Bush administration called for new investment in nuclear power. Calling nuclear power "one of the safest and cleanest sources of power in the world," the Bush administration proposed new subsidies to the U.S. uranium industry. After two decades of slack market, uranium prices have doubled in nine months. Rio Tinto Zinc, one of the world's largest uranium mining corporations, looks to new mines in Australia, the U.S., and Kazakhstan to fuel pending and projected reactors in China and possibly the U.S. (see article, page 9)

Indigenous lands have historically been the source of most of the world's uranium production. Native nations in the U.S., Australia, Canada and elsewhere are deemed to hold 70 percent of the world's uranium resources. The Navajo Nation alone holds an estimated 25 percent of recoverable uranium in the U.S. Native people are increasingly concerned about energy proposals for ramping up nuclear power, as new mines will compound the already devastating environmental and health effects of historic mining.

At the same time, groups like the Apollo Alliance point to underused solar and wind energy capacity, much of it in Navajo country. In Arizona and New Mexico, over 200 million-megawatt hours of solar energy and another potential five million of wind energy go unused a year. Potential solar production alone could supply well over six million American homes.

The Navajo Nation has a long and tragic relationship with the nuclear industry. In Cove, Arizona, at least one member of every Navajo family is thought to have died from cancer or other diseases resulting from uranium mining. Although the federal Radiation Exposure Compensation Act was designed to compensate victims, many Navajo miners died before the funds were released. Old uranium mines have never been cleaned up, and over 1,000 abandoned mines on the reservation still pose environmental and health hazards. Navajo in Church Rock and Crownpoint, New Mexico, have been victims of the nation's

worst radioactive uranium spill. In 1979, a liquid uranium tailings dam was breached and 100 million gallons of radioactive waste spilled into Navajo waterways. The Little Colorado River and subsequently the Colorado River were contaminated.

"Water is life' is not just a political slogan — it's a description of some of the fundamental principles we live by everyday. Water is used in our religious ceremonies, just like it is used in the ceremonies of the Christian, Hindu, Jewish and Muslim faiths. It is essential to our survival in an arid climate," Michael Capitan [co-founder of Eastern Navajo and Diné Against Uranium Mining] explained to a United Nations Conference this past September. Echoing those words, Richard Abitz, geochemist and environmental scientist, said, "Water is needed for life. Uranium is not needed for life. We can get by without uranium. We cannot get by without water."

"The people have spoken and our leaders have listened to the people," said delegate Alice Benally of Crownpoint. "Our people are still dying from this. This legislation was important to Navajo Nation, a very big step for Navajo people." The Navajo law is also a major step in challenging the Bush and nuclear agenda for America.

A longer version of this article originally appeared in the Autumn 2005 edition of Earth Island Journal, Vol. 20, No. 3.

U.S. Pressured Japan Not to Study Bomb Test Fallout

TOKYO, Japan — A document in the U.S. National Archives shows that the United States exerted pressure on the Japanese health ministry to drop research into the radioactive contamination of tuna following the March 1, 1954 U.S. hydrogen bomb test off Bikini Atoll in the South Pacific that contaminated a Japanese fishing trawler. The finding was reported by Hiroko Takahashi, an expert on U.S. history at Hiroshima City University's Hiroshima Peace Institute. Twenty-three crewmen aboard the 140-ton "Lucky Dragon" were irradiated, along with their fish, during the test. The Health and Welfare Ministry in Japan started the research immediately after the Bikini test and confirmed that a wide area around the atoll was contaminated along with the tuna caught by the Lucky Dragon. The health ministry ordered the catch destroyed. But about one month later, after a bilateral conference, the ministry suddenly stopped its research, saying that while the internal organs of tuna caught in the area were highly radioactive, the flesh of the tuna was safe for human consumption.

According to Takahashi, a document dated Jan. 5, 1955, addressed to Dr. W. R. Boss of the division of biology and medicine at the U.S. Atomic Energy Commission, mentioned a Japan-U.S. conference concerning the effects and usage of radioactive substances held in Tokyo in November 1954. The letter to Boss said the conference clearly influenced the Japanese government to stop research into the effects of radiation exposure on the tuna in January of 1955, and thanked him for his help in stopping the study.

Shortly after the contamination of fish became news, U.S. dealers asked the Japanese to observe restrictions calling for the fish to be examined closer than four inches with detailed inspection around the gills. On one hand the U.S. asserted that there was no danger and strongly implied that the Japanese were unrealistic about radioactively contaminated fish. On the other hand, they rejected even slightly contaminated tuna for consumption. U.S. tuna canneries in California were alerted and records of the FDA show that two radioactive fish were picked up at one cannery.

—The Daily Yomiuri Shimbu, June 18, 2005

“Depleted” Uranium Weapons Update

By John LaForge

Munitions made of waste uranium-238 are called “depleted” uranium weapons or DU. Radioactive waste left from the nuclear fuel and bomb production cycle is what gives the armaments their tank-busting punch, but they spread a deadly mist of toxic metal fumes with a radioactive half-life of 4.5 billions years when they burn through hard targets. Internal exposure to DU, through ingestion or inhalation, continues to maim and kill soldiers and civilians alike — wherever it’s been used or produced. Information comes to the Nukewatch office almost every day about DU’s effects, soldiers’ attempts to get tested for contamination, clean-up problems and the international campaign to abolish these “low intensity” or “stealth” nuclear weapons.

Soldiers to Sue Over DU Contamination

The Nation magazine reports that a group of soldiers back from Iraq will file a federal lawsuit against the Army for violating its regulations by not providing safeguards against exposure to DU and for not offering adequate medical treatment. As it did earlier with Agent Orange, the Pentagon continues to deny that the inhalation of DU is harmful. The nine New York National Guard soldiers who are filing the lawsuit were initially misdiagnosed by the Army. Private tests showed them to be contaminated with traces of DU and all of them are suffering from a variety of health problems.

U.S. DOT to require warnings on DU shipments. Ground Zero Center unmasked secret transports

The U.S. Dept. of Transportation (DOT) has decided to void an exemption given to the military that allowed for secret shipments of DU munitions.

The DOT Pipeline and Hazardous Materials Safety Administration in June announced plans to phase out the exemption in the next years for new radioactive munitions and in the next two years for munitions already manufactured, before transitioning to full compliance with hazardous materials regulations. The special exemption was created in 1986 and has been renewed every two years since. Shipments of DU occur daily throughout the U.S. on highways, railways and waterways.

Glen Milner with the Ground Zero Center for Nonviolent Action led the effort to have DU transports identified as radioactive, principally out of concern for drivers and for first responders and the radiation hazards they face. Thanks

to the Ground Zero campaign, the DOT received over 200 letters — from national and local government offices, first responders, interest groups and citizens — demanding that the exemption be withdrawn.

The DOT found that: 1) Radiation levels allowed by the exemption for DU are significantly higher than allowed in hazardous materials regulations and International Atomic Energy Agency (IAEA) regulations; 2) Transport workers can receive “inappropriate” radiation exposures by being in the vicinity of the material for just 100 hours per year; 3) The U.S. Navy has not had a required safety plan in place for a number of years for handling radioactive munitions; and 4) The Pentagon has been using the exemption internationally in violation of a specific requirement that the waiver is for domestic transports only. Shipments in foreign countries were made in violation of IAEA regulations.

U.N. training Iraqis to measure radiation from DU

Concerned about depleted uranium and what they say are increasing cancer rates, Iraqi officials are receiving training from U.N. experts on techniques to measure radiation levels according to international standards, said Pekka Haavisto, chairman of the U.N. Environment Program’s Iraq Task Force (UNEP).

Haavisto said May 31 that the Iraqis were especially concerned about the southern city of Basra. He said the Iraqi government approached UNEP for help.

“They did their own studies and found that the cancer risk has increased by two to three times since the 1991 Gulf War,” Haavisto told the Associated Press. “These are local studies and have not been internationally verified so it is difficult to say if the picture is so black.”

The British government has given UNEP detailed information on locations where it used 1.9 tons of DU in the south of Iraq, but UNEP says the U.S. government hasn’t come forward with the same information despite U.N. requests.

UNEP is instructing 16 officials from the Iraqi Ministry of Health and Environment, including both vice-ministers, in how to detect DU.

“The UNEP is currently providing training and equipment to Iraqi scientists to measure Beta and Gamma radiation from DU sources,” Haavisto said.

Haavisto said the UNEP is concerned that “there has been no proper clean up in Iraq since wars in 2003 and 1991. There is still DU and other chemicals on the ground. Looting has contributed to the problem.”

“Usually hazardous materials must be cleaned up as rapidly as possible,” he added.

UNEP’s studies in Kosovo (where ten tons of DU were fired), and the Balkans (where three tons were used), called for monitoring DU affected areas and clearly marking affected sites. They concluded that localized contamination can be detected at contaminated sites and so precaution is needed.

But the Balkans studies also identified a number of uncertainties requiring further investigation, according to UNEP. These include the extent to which DU on the ground can filter through the soil and eventually contaminate groundwater, and the possibility that DU dust could later be re-suspended in the air by wind or human activity, with the risk that it could be inhaled.

Louisiana, Connecticut call Pentagon DU tests inadequate

Louisiana has become the first state in the nation to challenge the way the Pentagon tests troops exposed to DU’s toxic, radioactive metal fumes.

On June 20, Governor Kathleen Babineaux Blanco signed into law the Depleted Uranium Testing Act, a move that anti-DU campaigner and 1991 Gulf War veteran Dennis Kyne calls a “right-hook” to the jaw of the Pentagon. The Louisiana bill requires DU testing for returning National Guard troops, but doesn’t spell out who should pay for the exams. The Defense Department and the Dept. of Veterans Affairs have constantly ignored, understated or misconstrued the effects of DU.

If signed by Gov. Jodi Rell, a similar Connecticut bill will also challenge the use of urine tests to determine exposure, a method known to be insufficient. Like the Louisiana bill, it requires the state to identify the best DU test available and then approach federal authorities to ensure that it is administered to returning state service members believed to have been exposed.

Internal DU exposure is thought to play a part in causing a host of illnesses including cancers, kidney disease and birth defects. Some of the undiagnosed maladies generally referred to as Gulf War Syndrome — headaches, joint pain, hair loss, bleeding gums, liver disorders, elevated blood pressure, gastro intestinal problems, muscle pain, fatigue, memory loss, skin rashes and shortness of breath — are known to result from radiation contamination. Veterans advocates and environmentalists contend that thousands of troops from wars in Iraq and Afghanistan have become seriously ill from the DU dust.

Radioactive Danger in Drinking Water

By Molly Mechtenberg-Berrigan

Plutonium contamination standards too weak

In August, the Institute for Environmental and Energy Research (IEER), a nuclear weapons watchdog group in Takoma Park, Maryland, charged in a new report that the federally-allowed level of drinking water contamination by plutonium-239 and other radioactive materials is 100 times too high. The report argues that the Environmental Protection Agency’s Maximum Contaminant Level (MCL) for plutonium, etc., is based on outdated, 1950s science.

The EPA’s current MCL was established in 1976 under the Safe Drinking Water Act. Since then, advanced scientific research has demonstrated that alpha-emitting, long-lived transuranic radionuclides (those heavier than uranium) concentrate near the bone and deliver a far greater dose of radiation than previously estimated. This research has been published by the EPA in its own documents.

A regulatory review of the Safe Drinking Water Act is scheduled for 2006, and IEER is urging the EPA to reconsider its findings before then. IEER is recommending that the allowable limit be reduced from 15 picocuries per liter (ppl) to 0.15 ppl. The state of Colorado did just that in 2002.

“The urgency that the EPA implement this change derives from the fact that long-lived radioactive waste, including plutonium, is being cemented in tanks or otherwise left in the vicinity of crucial water resources,” said Dr. Arjun Makhijani, president of IEER and author of the report. Makhijani referred to a 2004 law passed by Congress that reclassified millions of gallons of high-level waste as “incidental,” thereby weakening cleanup standards. Of special concern are three former nuclear weapons production sites with vast amounts of highly radioactive waste improperly stored near water. These water sources are the Savannah River, which forms the border between South Carolina and Georgia, the Snake River Plain Aquifer in Southern Idaho, and the Columbia River along the Washington-Oregon border.

To read the full report, “Bad to the Bone: Analysis of the Federal Maximum Contaminant Levels for Plutonium-239 and Other Alpha-Emitting Transuranic Radionuclides in Drinking Water,” see IEER’s website <ieer.org>

High levels of radioactivity in surface water

High levels of radioactivity have been found in surface water at two DOE nuclear weapons sites.

A citizens’ watchdog group in Ohio is challenging the DOE’s assessment that surface water near the Portsmouth

Gaseous Diffusion Plant in Ohio is safe. The facility enriches uranium for fuel in commercial nuclear reactors. In November 2003, the Portsmouth/Piketon Residents for Environmental Safety and Security (PRESS) arranged a sampling and testing of the water. The project, overseen by Russian physicist Sergey Pashenko, used a Geiger counter to measure general levels of radioactivity of foam residue from the stream, known as Big Run. The results found radioactivity more than 100 times background levels.

The DOE and United States Enrichment Corp. (USEC), which runs the facility, continue to deny the elevated radioactivity. “The bottom line is there is not a reason to be concerned,” said USEC spokeswoman Elizabeth Stuckly. According to PRESS, however, DOE data indicates its own findings of higher than normal levels of radiation. The Ohio State Environmental Protection Agency plans to perform radiation tests in August or September.

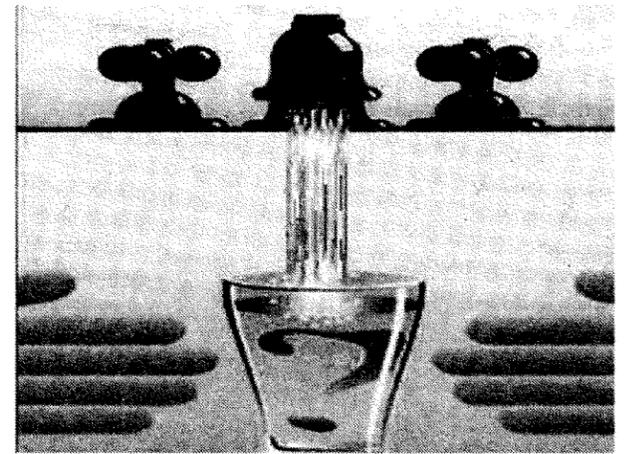
Big Run is a tributary of the Scioto River. In 1992, it was one of several in the area that contained radioactively contaminated fish.

The debate comes at a time when the DOE is planning to build a new gas centrifuge factory at the site to replace older equipment used to enrich uranium. Members of PRESS argue that the DOE cannot be trusted to operate a new facility without causing more environmental contamination.

At another DOE site, the Santa Susana Field Lab in California, radioactive contamination has been detected at six times the EPA’s drinking water standard. The lab is a former nuclear research facility. In the latest round of testing, officials found tritium, a radioactive form of hydrogen, at levels ranging as high as 117,000 ppl. The current drinking water standard is 20,000 ppl. DOE project manager Mike Lopez said readings of 12,000 ppl near the property boundary suggest the contamination hasn’t traveled far. “I don’t think there’s any risk to the public,” Lopez said. Tritium levels last year were discovered at 80,000 ppl.

DOE officials suspect the contamination occurred as far back as the 1960s, indicating that tritium levels in groundwater could have been even higher in years past.

Uranium extraction from aquifer beneath Navajo Nation
Despite a Navajo government ban on uranium mining earlier this year (see article, page 8), a NRC judge, on July 26, endorsed a plan to extract uranium from the only source of drinking water for 15,000 members of the Navajo Nation. The aquifer is located near Crownpoint and Church Rock, on the southeastern edge of the Navajo Nation in northern



New Mexico. A Canadian mining company has purchased additional uranium mining rights adjoining the Reservation.

The proposed mining operation would use a technique called “in-situ leaching,” in which chemicals are injected into the groundwater to leach uranium from the surrounding earth so that it in turn can be pumped to the surface. The technique has never been used in a drinking-water aquifer. The process has been shown to increase concentrations of uranium, other radioactive elements and heavy metals in the groundwater by up to 100,000 times.

Mike Wallace, a groundwater hydrologist who has worked in the nuclear industry at the DOE’s Waste Isolation Pilot Plant in New Mexico and the Yucca Mountain Site in Nevada, is concerned. He said, “It is enough to cause renal damage.... I’ve never seen such poor science, poor accountability, and poor traceability.”

For 50 years, the Navajo have been the victims of a total of 303 federal leases encumbering 250,000 acres of Navajo land for uranium mining and milling. The results include significantly elevated cancer rates, birth defects among Navajo children and economic destitution for virtually the entire Navajo Nation.

Interest in the uranium market has increased significantly in recent years, corresponding to a uranium ore price increase from \$7.50-a-pound five years ago, to about \$30-a-pound today.

Lawyers for the New Mexico Environmental Law Center plan to appeal the judge’s decision and if necessary take the matter to court.

French President Okayed Bombing of Greenpeace Ship

PARIS — The state-sponsored bombing of Greenpeace flagship *Rainbow Warrior* 20 years ago was carried out with “personal authorization” by France’s late president Francois Mitterrand, documents show.

The July 9 edition of the French daily *Le Monde* published excerpts of a 1986 account written by Pierre Lacoste, the former head of France’s secret service. The extract gives the clearest demonstration yet of Mitterrand’s direct involvement in the sinking of the campaign vessel.

Portuguese photographer Fernando Pereira was killed in the July 10, 1985 bombing of the ship that was leading

Yucca Mt. Dump Plan on the Skids

LAS VEGAS — Lawyers for the state of Nevada argued in the U.S. Court of Federal Claims April 7 that electric ratepayers should be refunded the \$40 million that’s been set aside for the proposed Yucca Mountain nuclear waste dump near Las Vegas. Nevada wants the money returned now to allow the nuclear waste producers to pursue other storage options. The Energy Department’s schedule to finish the Yucca Mt. repository by 2012 is “sheer fantasy” the lawyers said, citing numerous problems.

Yucca Mt., 90 miles from Las Vegas, is planned as an underground repository for 77,000 tons of the nation’s nuclear waste.

Nevada Attorney General Brian Sandov said in court papers, “the repository is unlikely ever to open,” pointing to the lack of a complete license application, the incomplete document database, the unfinished new radiation standard to replace the one thrown out by a federal appeals court a year ago, and the current investigations into falsified scientific information based on e-mail exchanges by federal employees. The DOE is already seven years behind schedule.

A congressional subcommittee investigating falsification of research by dumpsite engineers issued a

subpoena to the Energy Department in July. The congressional staff members said they wanted more technical studies, organizational charts and lists of acronyms. The DOE has stonewalled and has complained about the committee’s earlier release of e-mail messages detailing the falsifications.

“I asked the president if he gave me permission to put into action the neutralization plan that I had studied on the request of Monsieur Henu,” Lacoste wrote. Charles Henu was France’s defense minister at the time.

“He [Mitterrand] gave me his agreement while stressing the importance he placed on the nuclear tests. I didn’t go into greater detail on the plan as the authorization was explicit enough,” Lacoste said. He added that he “would not have

launched such an operation without the personal authorization of the President of the Republic.”

The scandal, which triggered Henu’s resignation and Lacoste’s departure from the secret service, shocked the world and tarnished France’s image.

Two French agents were later tried and imprisoned for blowing up the ship. They began their sentences in New Zealand but were later transferred to a military base in French Polynesia and were released within three years of the attack.

Lacoste’s April 8, 1986 account is contained in a 23-page handwritten document that has only now come to light.

The account is supported by documents in the secret service’s archives and others likely to be in Lacoste’s own possession, *Le Monde* said.

No word was forthcoming from the Justice Ministry as to whether Lacoste will be charged with murder and conspiracy in the attack.

Famine & U.S. Still Stalking N. Korea

LOS ANGELES — As North Korea works to fend off U.S. military threats, fears grow inside the country that it “could be facing a famine as severe as the one that cost the lives of about two million people in the mid-1990s.”

The *Los Angeles Times* reported July 3 that mass mobilization was under way in which “even office workers from the city” spend weekends in the countryside planting rice and other crops.

Bad spring weather, a poor 2004 harvest and international hostility in the form of aid cutoffs have combined to produce an “especially short supply” of food. South Korea — reportedly angry about the North’s withdrawal from six-nation talks on the North’s nuclear weapons program — delayed shipments of fertilizer. “Barley is still on the stalks that should have been harvested weeks ago so that the same fields can be used for rice,” the *Times* reported, in part because of the lack of fertilizer.

In March 2002, the Pentagon’s Nuclear Posture Review recommended building new U.S. nuclear weapons “tailored” to destroy targets in North Korea, Iran, Iraq, Syria and Libya. North Korea’s Central News Agency responded then by saying, “If the U.S. intends to mount a nuclear attack on any part of the DPRK just as it did on Hiroshima, it is grossly mistaken. A nuclear war to be imposed by U.S. nuclear fanatics would mean their ruin in nuclear disaster.”

Since 2002, North Korean president Kim John Il has said, “If the U.S. recognized our sovereignty and assures nonaggression, it is our view that we should be able to find a way to resolve the nuclear issue.” It is an assurance that the White House has refused to give. In April, Mr. Bush called Mr. Kim a “tyrant” and Secretary of State Condoleezza Rice has called the country an “outpost of tyranny.”

Again Aug. 1, the North repeated its promise to rejoin the Nuclear Nonproliferation Treaty and permit international inspections of its nuclear sites, but only if the U.S. and the other participants in six-nation talks guarantee non-aggression.

The North’s plans to build nuclear power reactors were once happily endorsed by the U.S. state department, which was helping Westinghouse Co., General Electric and other reactor builders do business.

The Dirt on Contaminated Soil

Some Japanese radioactive waste to be transported to undisclosed U.S. location

JAPAN — There’s a saying in Japan, “The nuclear industry is like a house without a toilet.” On August 9, Japan’s Ministry of Education, Culture, Sports, Science and Technology (MEXT) and Japan Nuclear Cycle Development Institute formally announced its intention to ship 290 cubic meters of uranium-contaminated soil to the U.S. The soil has been abandoned for 40 years, near the border of Tottori and Okayama Prefectures in southern Japan, and has contaminated area rice paddies. A contract may soon be signed with an unnamed U.S. refining company that expects to earn \$5.5 million to process the soil. The shipment is expected by the middle of September. MEXT’s representative said that U.S. government approval has been obtained.

—Citizens’ Nuclear Information Center, Japan, Aug. 15, 2005

Radioactive soil shipments moving again

LONG ISLAND, New York — The Long Island Railroad halted its shipments of radioactive soil from Brookhaven National Laboratory on June 23, leaving 60 rail cars of contaminated dirt standing on the tracks in Brookhaven for weeks. An agreement with the president of the borough of

Queens is required for all shipments of hazardous waste, and permission had not been granted. New York City’s Office of Emergency Management, the Long Island Rail Road and the borough reached an agreement July 21. For each trainload of radioactive waste, New York’s emergency management office will notify the Manhattan Transit Authority police, the New York City Police Department, the NYC Fire Department and other emergency agencies.

—*Newsday*, July 26, 2005

Radioactive dirt spilled on Virginia highway

WYTHEVILLE, Virginia — An accident involving a tractor-trailer carrying radioactive debris shut down part of I-81 in Wythe County, in southwest Virginia, for a time on July 8. The truck originated in Connecticut and was hauling contaminated soil and parts of a demolished building. Radioactive dirt and other items spilled onto the roadway. Following the accident, authorities were alerted that the load might be radioactive. The truck was not marked as a radiation hazard. Emergency crews tested the soil and claimed the level of contamination was not high enough to be a danger to the public.

—*WorldNow*; & WAVY-TV.com, July 9, 2005

DOE to Resume Production of Plutonium-238

WASHINGTON, D.C. — The Department of Energy is moving to resume production of plutonium-238 as an energy source for spacecraft, spy satellites and undersea military operations. The DOE claims existing supplies will be depleted by 2010. Plutonium production is set to be consolidated at the Idaho National Engineering Laboratory (INEL). The Idaho National Lab is located close to Yellowstone National Park in Wyoming.

A final decision on consolidation is expected later this year. Plutonium-238 is not used for nuclear weapons, but its steady, virtually infinite release of heat during decay makes the isotope valuable as a heat source to produce electricity in spacecraft, satellite and undersea missions that are unable to rely on the sun as an energy source. It is 300 times more radioactive than weapons-grade plutonium-239, and ingesting a speck can be fatal.

The U.S. stopped producing plutonium-238 in the mid-1990s when it shut down the last weapons reactor at the Savannah River Site in South Carolina. It has relied on existing stockpiles and a 35-pound supply provided by Russia that is limited to use by the space program.

The process for making plutonium-238 requires taking neptunium oxide stored at INEL and putting it in INEL’s Advanced Test Reactor. The neptunium is bombarded with neutrons, which turns some of it into plutonium-238. The neptunium “targets” are mechanically processed to extract the plutonium, which then is turned into a ceramic pellet. Finally, the pellets are put into the Radioactive Thermal Generators, or batteries, to create energy.

Currently the government has about 87 pounds of plutonium-238 but expects all but 14 pounds to be used up

by 2010, including about 55 pounds for national security-related programs.

“These power systems have been used for the past 30 years, and we expect that their need will continue,” DOE spokesman Mike Waldron said. “Production of plutonium-238 is critical if the U.S. is to continue its leadership in areas of space exploration and provide for certain classified security operations.”

Plutonium-238 Battery Failures go Global

Plutonium batteries used in the space program are responsible for widespread contamination.

* In 1964, rocket failure led to the destruction of a navigation satellite, Transit 5BN-3, powered by P-238, spreading radioactivity around the globe and starting a debate over the health effects caused by plutonium-powered batteries.

* In 1965, high in the Himalayas, an intelligence team caught in a blizzard lost a plutonium-powered device meant to spy on China.

* In 1968, an errant weather satellite, the Nimbus B-1, crashed into the Pacific, but federal teams managed to recover its 4.2-pound P-238 battery intact from the Santa Barbara Channel, off the coast of California.

* In 1970, Apollo 13 fell to the ocean floor in the south pacific, off New Zealand, carrying with it between 5.5 and 8.3 pounds of P-238. It has never been recovered.

Plutonium production at Oak Ridge, Tennessee, Los Alamos National Lab in New Mexico and the Savannah River Site would be shifted to Idaho. If approved, the plutonium-238 complex will be finished by 2009 and production would begin by 2012. The construction cost is expected to be more than \$300 million. However, the entire program is expected to cost upwards of \$1.5 billion over 30 years and produce more than 50,000 drums of hazardous and radioactive waste. Plans call for making 11 pounds of plutonium-238 every year for over 30 years. The DOE denies that the production program involves putting nuclear weapons into space.

Federal experts say that the newest versions of the plutonium batteries are made to withstand rupture and the dispersion of deadly radiation, and that the risk of human exposure is extraordinarily low.

Local environmental and antinuclear groups oppose the DOE plan because of the extreme danger of plutonium and the department’s terrible record of accidents and contamination. Mary Woollen-Mitchell of Keep Yellowstone Nuclear Free said, “They are concentrating all this production in just one place but it has never really been done safely anywhere. We’re skeptical when they say, ‘We know enough to make sure it’s safe and to avoid an accident.’” The Snake River Alliance, a nuclear watchdog in Idaho, said, “Idaho is once again in the bull’s eye for a dangerous nuclear program that will create more nuclear waste and increase the contamination risks for our people, economy, and environment.”

—*Guardian Unlimited*, June 27; *New York Times*, June 27; Idaho National Laboratory <www.inel.gov>; & *Independent News & Media* (UK), June 28, 2005

United Nations Day Action

Rejoining the World Community

PEACE CONVERGENCE

Sunday October 23, 12:30 - 9 p.m.

University of St. Thomas / St. Catherine
2115 Summit Avenue
(parking on the corner of Summit and Cretin)
O'Shaughnessy Auditorium
St. Paul, Minnesota

Opening ceremony 1 p.m.
With *In the Heart of the Beast*
Puppet and Mask Theater

1:30 - 5 pm: * Discover International Law
* Discuss illegal weapons made by Alliant Techsystems * Learn about the effects of depleted uranium (DU) on soldiers, civilians and the environment * Participate in an exploration of nonviolence in action
6:30 p.m.: * Regathering Ceremony

Keynote addresses by
Polly Mann & Marv Davidov



UN DAY at ATK NONVIOLENT DIRECT ACTION

Monday October 24

Gather at 7 a.m.

ATK corporate headquarters
5050 Lincoln Drive, Edina
5th Street exit from Highway 169 (Edina-Hopkins border)

Gather to protest the illegal weapons produced by AlliantTech, including cluster bombs, landmines and depleted uranium munitions. Participate in or support an act of civil resistance.

Additional information online at:

www.circlevision.org
click on AlliantACTION

www.nukewatch.com
click on Calendar

Contact the organizers: AlliantACTION - infor@circlevision.org; phone: 651-644-8118 or Nukewatch - nukewatch@lakeland.ws; phone: 715-472-4185

HELP SUPPORT NUKEWATCH

Nukewatch depends on donations from grassroots activists to continue our work for disarmament.

Please use the enclosed envelope to make your contribution.

Nonviolence Training

Facilitated by Joel Kilgour,
John LaForge & Bonnie Urfer

Saturday October 22

10:00 a.m. - 4:00 p.m.

Univ. of St. Thomas, Room OEC 414 —
O'Shaughnessy Ed. Center, St. Paul

Includes history, principles, assets,
role plays and discussion.
Bring a brown bag lunch.

Peace Convergence sponsors and endorsers: AlliantACTION, Anathoth Community Farm, Anti-War Committee, Campaign Against Depleted Uranium - England, CircleVision.org, Casa Maria CW - Milwaukee, Citizens for Safe Water Around Badger, Friends for a Nonviolent World, GAAA - Nonviolent Action Nuclear Abolition - Germany, Grassroots Action for Peace, IPAC, Justice and Peace Studies Program - UST, Merriam Park Neighbors for Peace, Military Toxics Project, Minnesota Campaign to Ban Landmines, Nonviolent Peaceforce, Nuclear Energy Information Service, the Nuclear Resister, Nukewatch, Pandora DU Research Project - England, Minnesota Pax Christi, Phil Berrigan DU Coalition, Phil Berrigan CW - Des Moines, Sisters of St. Joseph of Carondelet Justice Commission, Twin Cities Peace Campaign - Focus on Iraq, Veterans for Peace - Chapters 27 & 80, War Resisters League, Women Against Military Madness, World Information Service on Energy - Amsterdam

Nonviolent direct action organizers: AlliantACTION, Anathoth Community & Nukewatch

Editorial

“Unthinkablists” Still Planning Nuclear War

It's official. Presidential war — even nuclear war — can be launched without provocation, based on nothing but potential, unproven threats, like the March 2003 bombing and take-over of Iraq.

As outlined by undersecretary of defense for policy Douglas Feith, the Pentagon has made formal its position that, “The potentially catastrophic impact of an attack against the United States, its allies and its interests may necessitate actions in self-defense to preempt adversaries before they can attack.” This is according to the military's so-called National Military Strategy.

Under the policy, the government will “act with others when we can,” but “reserves the right for the U.S. to act on its own when necessary.” The previous “National Military Strategy,” done in 1997, did not include plans for sneak attacks.

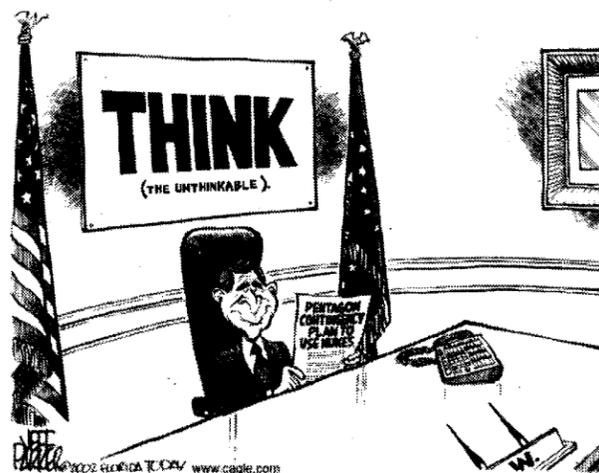
As John Hendren reported in the *Los Angeles Times* March 20, the document further shifts the nation to a global strategy of Pearl Harbor-like attacks even against “terrorist organizations within friendly nations.”

“The president has the obligation to protect the country,” Feith said. “And I don't think that there's anything in our Constitution that says that the president should not protect the country unless he gets some non-Americans' participation or approval of that.”

Feith should consult the Constitution's limit on presidential power. Article I, Sec. 8, gives Congress alone the “Power to declare war.” Feith may also be interested in Article VI, Sec. 2, which makes treaties the “supreme law of the land.” Principal among these supreme laws is the Charter of the United Nations.

The Charter is unambiguous in its condemnation of military aggression and its intention to prevent it — the UN's purpose. Warfare is explicitly limited by the Charter to acts of self-defense, and then only after one is attacked. Violations of the UN Charter can open the U.S. to Security Council sanctions as well as penalties under the International Court of Justice and the International Criminal Court.

Military operatives know full well how important these global institutions are to civil society, so the Pentagon document addresses them directly, lumping multinational legal systems with terrorists.



“Our strength as a nation-state will continue to be challenged by those who employ a strategy of the weak using international [forums], judicial processes and terrorism,” the document says.

According to the *LA Times* report, undersecretary Feith said March 18 that the military's concern “was that some nations would try to criminalize American foreign policy by challenging it in international courts.”

Pentagon war planners have a good idea why recent U.S. attacks on Afghanistan, Iraq, Serbia, Kosovo, Sudan, Somalia and elsewhere are considered illegal. The Charter says so, and as regards Iraq, so has UN Secretary General Kofi Annan.

A related Pentagon policy paper calls for “allowing preemptive nuclear strikes against possible biological and chemical attacks,” *The Japan Times* reported May 2.

The draft “Doctrine for Joint Nuclear Operations” suggests that commanders in the Pacific “and elsewhere” be given the power to ask for presidential approval for unannounced nuclear weapons attacks against “rogue” states and terrorists “under set conditions.”

One can imagine the secret government “conditions” used to justify thermonuclear destruction, which later turn out to be as “set” as Iraq's weapons of mass destruction.

The proposed doctrine would reverse nuclear weapons threat policy made by presidents Carter, Reagan, Clinton and Bush I, which seemed to limit U.S. nuclear war plans to attacks on other nuclear-armed states or to acts of retaliation.

The draft proposal speaks blithely of nuclear sneak attacks against “possible” strikes on the U.S. In combination with the National Military Strategy above, the Pentagon baldly claims this: The President can wage war on anyone, anywhere — even nuclear war — based on nothing more than his own word that U.S. interests are threatened.

For the shooters, this nuclear war plan has one advantage over conventional war. After the rubble stops burning, no one will be able to dispute the existence of the “possible” threat because the “set conditions” were all demolished by the ultimate weapon of mass destruction. The intelligence can be “fixed” after the fact.

Even if the use of H-bombs could be spun by the perpetrators as “defensive” — which in law it cannot — any rationale for nuclear war is ludicrous on its face. The effects of nuclear weapons (as Molly Mechtenberg-Berrigan explains on page 9) are so horrifying, long-lasting, poisonous and indiscriminate that only psychopaths could consider much less promote them. Still, Pentagon men carry on with their mythology of practical, effective, winnable nuclear war because, without an occasional pro-nuke policy paper, the arsenal and its operators would lose their mystique of purposefulness and their endless budget could be challenged.

— John LaForge

Return Service Requested



The Progressive Foundation
P.O. Box 649
Luck, WI 54853

NONPROFIT ORG.
U.S. POSTAGE
PAID
LUCK, WI
PERMIT NO. 47

U.S. Panel Called Racist for Backing Res. Waste Dump

Editor's note: The Nuclear Regulatory Commission granted a license Sept. 9 to a plan to store privately generated nuclear waste on the tiny Goshute Reservation in Skull Valley, Utah, 50 miles from Salt Lake City. The decision was condemned by Gov. Jon Huntsman, who vowed to fight it in court, and it is sure to spark a worldwide campaign of opposition. In Washington, DC, the Nuclear Information & Resource Service (NIRS) issued a stinging rebuke of the decision, excerpted here:

Approving a private nuclear waste site on the Goshute Indian Reservation in Utah is the latest example of environmental racism on the part of the federal government. The commissioners, who voted 3-1, have now condemned a tiny impoverished tribe in Skull Valley to generations of environmental and health risks.

Nearly 450 organizations petitioned the Commissioners to reject the dangerous and racist proposal put forward by the utility consortium, Private Fuel Storage (PFS). We thank Commissioner Gregory Jaczko for his clearheaded rejection of this outrageous proposal. PFS presents transportation dangers, security risks, and environmental justice violations.

The plan is to ship 44,000 tons of high-level radioactive waste starting in 2007. Some 4,000 rail shipments would far surpass the total number of high-level radioactive waste shipments carried out in the U.S. since the beginning of the Atomic Age in 1942. Shipments would travel through highly populated regions in dozens of states with little to no preparation for emergency responders. Each container would hold over 200 times the radiation released by the Hiroshima bomb. These containers are vulnerable to severe accidents and terrorist attacks which could release catastrophic amounts of deadly radioactivity. Thus, they represent Mobile Chernobyls and potential dirty bombs on wheels. This plan is a fatally flawed shell game, unnecessarily risking transport ... to a temporary dump, only to have it moved again, doubling the transport risks.

Once at Skull Valley, the 4,000 containers of waste would be a bull's eye for terrorists. The facility would also be at risk from the 7,000 annual overflights by F-16 fighter jets, loaded with munitions, traveling one of the busiest bombing ranges in the country. One fiery crash could unleash deadly amounts of radiation that would blow with the wind and rain onto one of the West's biggest cities. NRC Chairman Nils Diaz, who voted in favor of licensing the dump, stated at the National Press Club earlier this year that such crashes need not be of concern, for the radioactivity would not extend beyond two miles. Not only could the radiation travel much further than two miles, he failed to note that the Skull Valley Goshute Indian Reservation community is within two miles of the proposed dump.

Industry whistleblower Oscar Shirani and NRC whistleblower Ross Landsman have revealed major quality assurance violations by the Holtec waste storage and transportation casks planned for PFS. The violations call into question the integrity of the containers and their ability to withstand transport and storage accidents and terrorist attacks. NRC Atomic Safety and Licensing Board Judge Peter Lam cited such defects in the casks as one reason for voting against the PFS license in a rare 2-1 split decision earlier this year.

Grace Thorpe was instrumental in stopping the high-level radioactive waste dump targeted at her Sauk and Fox Indian Reservation in Oklahoma. Rufina Marie Laws helped cancel the dump targeted at her Mescalero Indian Reservation in New Mexico. Scores of tribes have been targeted by the nuclear establishment, but until now all such proposals have been stopped. Margene Bullcreek and other Skull Valley Goshute tribal members will continue to struggle against this threat to their community and sacred homeland, and they will not be alone. Our organization, along with hundreds of others, will fight this dump at every turn, until it is defeated.

The Bureau of Indian Affairs and the Bureau of Land Management must still issue permits. Take action: NIRS (202) 328-0001 <nirsnet@nirs.org> <nirs.org> and Shundahai Network, (801) 533-0128 <shundahai@shundahai.org>

www.laka.org
Digitized 2018