

What's Wrong With
Nuclear Power?
Special Report on Page 4.

NUKEWATCH

PATHFINDER

A publication of the Progressive Foundation — Spring 2004

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

ABOLISH NUCLEAR WEAPONS

USA: 10,600 - RUSSIA: 10,000
 CHINA: 400 - FRANCE: 350
 BRITAIN: 185 - ISRAEL: 200+
 INDIA: 60 - PAKISTAN: 48

May 15 & 16

9:00 am
 Cable United
 Church of Christ
 Cable, WI

Starting with
 noon lunch at
 Project ELF

Peace
 Gathering
 and
 Nonviolent
 Direct
 Action
 at the U.S.
 Navy's

Project ELF

in the
 Chequamegon
 National
 Forest Clam Lake, Wisc.

**KEYNOTE SPEAKER:
 LIZ McALISTER**

Sponsored by Anathoth Community Farm;
 Loaves & Fishes Catholic Worker Community; Nukewatch;
 Peace North, Northland Grandmothers for peace,
 Veterans for Peace Chapter 80

For more information contact:
 Loaves & Fishes (218) 728-0624
 Nukewatch (715) 472-4185
 Peace North - www.peacenorth.org (715) 634-7389

Weekend activities include
 workshops, speakers, music,
 videos, good food, puppetry,
 nonviolent action

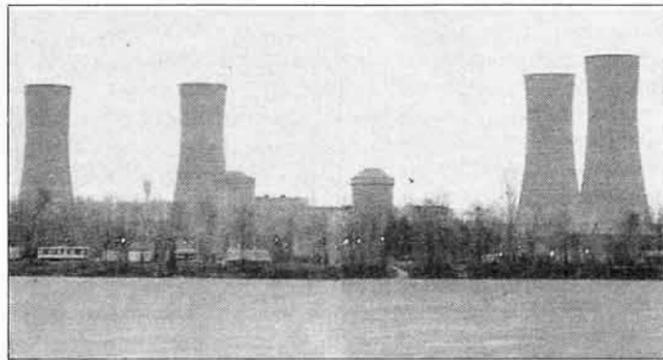
Collection: *Lalika Foundation*

www.laka.org
 Digitized 2018

Deadly Meltdown: 25 Years Since TMI

By John LaForge

March 28, 2004, marks the 25th anniversary of the fuel meltdown and radiation disaster at Three Mile Island (TMI) in Pennsylvania. Government scientists at the Idaho National Engineering Laboratory said in 1988 that 40 percent of TMI Unit 2's nuclear core melted during the incident.



The Three Mile Island reactors are located east of Harrisburg, Pennsylvania. Citizens in the capitol city were evacuated three days after uranium fuel melted, but people living across the river were not.

The loss-of-coolant and nerve-rattling, potentially explosive hydrogen gas buildup inside the reactor vessel caused such a scare that the construction of nuclear power reactors ended in the United States — except for export.

The health and environmental consequences of the TMI disaster have never been widely acknowledged. Official denials, industry propaganda, ignorance of radiation-related health effects and cover-up have led, full circle, to the current administration's attempts to revive new reactor construction.

This in spite of the dire analysis of author Daniel Ford in his 1982 book *Three Mile Island: Thirty Minutes to Meltdown*. In it Ford says, "Given the regulatory lapses leading up to the accident, and the extensive warning about the reactors' safety weaknesses that had long been available to federal officials, there is some question whether the event at TMI should, in a strict sense, be called an 'accident.'"

To bury the incident's bad news under a gloss of official concern, President Jimmy Carter's Kemeny Commission hurriedly finished its report in the summer of 1979 — without considering any data on the effects of wind-borne radiation. The wind blew 6-to-9 mph toward upstate New York and western Penn.

Fourteen million curies of noble (radioactive krypton and xenon) gases were deliberately vented by the reactor's operators, including 14 curies of vaporized iodine-131. (A curie is a gigantic amount of radiation; 37 billion subatomic disintegrations per second.) On the third day of the venting of this gas, half the population within 15 miles — 144,000 people — fled the area. By this time the bulk of the estimated 14 million curies of gases were already drifting on the wind.

In 1980, Pennsylvania State health authorities reported a sharp rise in hypothyroidism in newborn infants in the three counties downwind of the reactor. Late in 1979, four times as many infants as normal were born with the disease. The Nuclear Regulatory Commission (NRC) said the increase was unrelated to radiation released by TMI. Upwind incidence of the disease had dropped below the national average.

The same year, six workers entered the heavily contaminated reactor building. Five of the six later died of radiation-induced cancers. David Lochbaum of the Union of Concerned Scientists told Nukewatch that the UCS opposed license renewal for the other TMI units and demanded health studies for neighbors. The NRC refused.

The federal government's own Monthly Vital Statistics Report shows a statistically significant rise in infant and overall mortality rates shortly after the accident. Infant deaths soared 53 percent in the first month after the accident; 27 percent in the first year.

Studying 10 counties closest to TMI, Dr. Jay Gould, in his meticulously documented 1990 book *Deadly Deceit*, found that deaths from birth defects were 15-to-35 percent higher than before the accident, and breast cancer deaths 7 percent higher. These increases far exceeded those elsewhere in Pennsylvania.

Gould suggests that 50,000-to-100,000 excess deaths occurred after the TMI accident. Leukemia deaths among kids under 10 (1980-to-1984) jumped almost 50 percent compared to the national rate.

Epidemiologist Joseph Mangano of the New York-based Radiation and Public Health Project, and author of the 1998 *Low-Level Radiation and Immune System Damage*, says, "The NRC allows reactors to emit a certain level of radiation, but it does not do follow-up studies to see if there are excessive infant deaths, birth defects or cancers."

Mangano reports that "between 1980-1984, death rates in the three nearest counties were considerably higher than 1970-74 — before the reactor opened — for leukemia, female breast, thyroid and bone and joint cancers."

The journal *Environmental Epidemiology and Toxicology* reported in 2000 that in counties adjacent to nuclear reactors, infant mortality fell dramatically after the reactors closed. In the first two years after the reactors shut down, infant death rates fell 15 to 20 percent. In communities near Big Rock Point in Michigan for example, the decrease in infant mortality rates was 54 percent; at Maine Yankee, the percentage decrease was 33.4.

The evidence of cancer caused by reactor operations brings to mind the words of Roger Mattson, former Director of NRC Division of Systems Safety, who said during the TMI meltdown, "I'm not sure why you are not moving people. I don't know what we are protecting at this point."

Low Doses More Dangerous

Even after 35 years worth of accumulated evidence of harm from low radiation doses, the nuclear industry has convinced

some influential members of Congress to demand relaxed radiation exposure standards.

The industry is stranded with millions of tons of radioactive waste, including one million tons of radioactively contaminated scrap metal. To save itself the billions of dollars that proper management of this waste would cost, the industry is attacking the universally agreed rule of thumb that any dose of radiation, no matter how small, is dangerous. Indeed, Karl Morgan, the "father of health physics," told the *Bulletin of the Atomic Scientists*, "Down at low doses you actually get more cancers per person-rem than you do at high doses." This is in part because low-level exposure damages cells that live on to produce tumors, whereas high doses kill the cells outright.

Roger Clark, president of the International Commission on Radiological Protection, believes current standards need to be toughened not weakened. "Some people think that too much money is being spent to achieve low levels of contamination."

State Thwarted TMI Cancer Study

Twenty-five years after the nation's worst civilian nuclear disaster at Three Mile Island, the cancer specialist hired by the state of Pennsylvania to study cancer rates in the Pottstown area has halted his two-part investigation due to deep misgivings about the contradictory behavior of the state Department of Health. Dr. Andrew Baum, deputy director of the University of Pittsburgh's cancer institute, was hired by the state to examine the number of cancer cases in the area. In August 2003, he reported that his preliminary findings indicate, "some evidence of higher cancer risk in children" and "small elevations in all cancers." The state Health Department immediately silenced Dr. Baum, asking him not to discuss his findings.

Meanwhile, unbeknownst to Baum, the Health Department conducted its own study concluding there was no increased cancer risk in Pottstown. The state released the results from their study at a public meeting in November. "I didn't know about the meeting in November, and we were not invited to attend," Baum said. "And I didn't know they did their own study." The state study looked only at cases in one area code, excluding many sections of the Pottstown area.

Due to the contrary and obstructive actions of the Penn. Health Dept., Baum confirmed in February that he would not conduct the second part of his statistical analysis. He had planned to interview area families struck by cancer. Baum is not the first specialist to find higher rates of cancer in the area. An earlier analysis by Joseph Mangano reviewed cancer statistics at the request of the Alliance for a Clean Environment, found childhood cancer rates to have jumped more than 90 percent since 1979.

Annals of Environmental Pollution

"Surprising" Jump in U.S. Breast Cancers

The number of large breast cancers in U.S. white women — tumors five centimeters or more across — grew by two percent a year between 1992 and 2000, according to the American Cancer Society and the National Cancer Institute.

The incidence increased from 5.6 cases per 100,000 in 1992, to 6.3 per 100,000 in 2000.

"We were surprised to see there has been an increase," said senior author Jeffrey Thun, whose report was published in *CA*, the cancer society's journal for clinicians.

"I'm not sure what to make of it. It's a surprise," said Dr. Phyllis Wingo of the Centers for Disease Control and Prevention in Atlanta.

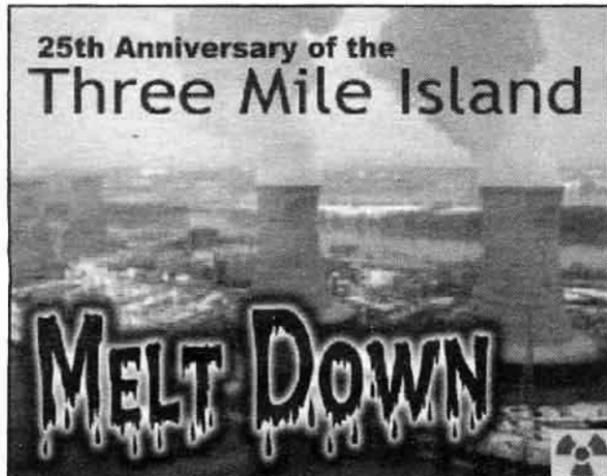
The incidence of smaller tumors, those two- to five-centimeters, is far higher: about 124 tumors per 100,000 women.

(*The Guardian* reports that overall breast cancer rates are rising in all age groups in England. In 1980, the total diagnosed was 25,124. In 2000, there were 40,467 cases. With about 29.6 million women in England, the comparative incidence is roughly 136 cancers per 100,000 women — up from about 84 per 100,000 in 1980.)

The Cancer Society/NCI report studied only white women. Black women in the U.S. suffer roughly twice the incidence of breast cancer that afflicts white women — about 12 per 100,000.

The cancer society suggests that poverty and lack of health care are the reasons black women suffer twice the breast cancer incidence of whites. No study of low-level radiation exposure or other environmental pollutants accompanied the ACS analysis. Communities of color are far more likely than white neighborhoods to be targeted by hazardous landfills, incinerators, nuclear reactor, and other heavy industry.

Dr. Thun said the increase in cancer cases in whites was most likely caused by "increases in women's estrogen levels resulting from obesity and artificial hormone-replacement therapy." A large study published last year showed that hormone replacement pills, used after menopause, may cause breast cancer, heart attacks and stroke.



Be Safe

"Be Safe," a coalition of national, state and local groups is sponsoring a week-long series of events across the country (March 22 - 28) to mark the 25th anniversary of one of the worst radiation disasters in U.S. history, the 1979 meltdown at Three Mile Island.

Nukewatch is helping with the March 25 rally in Madison (12:30 p.m., Library Mall, U. of Wisconsin campus), which will focus on AB 555, a Republican-sponsored attempt to revive nuclear power in Wisconsin. See: www.wnwd.org.

For more information on the multi-issue BE SAFE precautionary campaign and a nuclear power brochure, see: www.besafenet.com; (518) 732-4538; annerabe@msn.com.

For the first time since 1958, the infant mortality rate increased in the U.S. Generally an indication of the quality of health care, prenatal care and nutrition in a given state, the U.S. is already ranked 28th in infant mortality in the world, with 7.0 infant deaths per 1,000 births. Hong Kong, China has the lowest rate: 3.1 deaths per 1,000 births. China has seven nuclear reactors while the U.S. operates 104.

Yucca's Day in Court

Yucca Mountain is the darker mountain directly right of center.

Photo by John LaForge

10,000-Year Standard for Waste Containment Criticized

By Kevin Kamps

"Ten thousand years is incorrect," federal appeals court Judge Harry T. Edwards told the Justice Department lawyer. Judge Edwards was dismissing the Environmental Protection Agency's (EPA's) arbitrary 10,000-year standard for the length of time nuclear waste must be isolated at any future Yucca Mountain nuclear waste dump. Containers must isolate the waste for at least 300,000 years, Edwards noted, citing a National Academy of Sciences estimate.

In the 20-year struggle over use of Nevada's Yucca Mt. as a national dumping ground for nuclear waste, the EPA has argued that a repository should contain the waste for only 10,000 years.

Government attorneys made the same claim January 14, when a combined group of 12 lawsuits against the Yucca Mt. plan was heard in the U.S. Court of Appeals for the Washington DC District. Two of the three appeals court judges "seemed to side with opponents of the site on the issue of how long a repository should have to retain the waste," the *New York Times* reported.

A coalition of national and Nevada-based environmental groups want to overturn the EPA's artificial limit on regulatory enforcement. Even the DOE has admitted that its burial containers could fail soon after 10,000 years. The State of Nevada predicts that leakage would occur sooner than that, and that peak radiation doses to "receptors" downstream (people, that is) would occur 100,000 to 300,000 years later. As a group of U.S. members of Congress said before the EPA issued its final Yucca Mt. rules, "To cut off regulation at 10,000 years is to be aware of future dangers but do nothing about them."

The environmental coalition is challenging the EPA's rewritten regulations for Yucca. Natural Resources Defense Council attorney Geoff Fettus argued the coalition's case before the three-judge panel. Fettus told the court that the EPA's 11-mile radioactive contamination dilution zone for the groundwater surrounding the dump would violate the federal Safe Drinking Water Act. The aquifer beneath Yucca is used for drinking and irrigation in the Amargosa Valley, one of Nevada's largest farming communities.

Utah Loses Nuclear Dump Suit

By Bonnie Urfer

WASHINGTON, DC — The state of Utah recently lost a legal battle to keep high-level radioactive waste off the state's Skull Valley Goshute Indian Reservation. The Washington, DC, Circuit Court of Appeals made its 3-0 decision February 24. The ruling is significant since the "away from reactor" argument has been a primary issue in the struggle against Private Fuel Storage. PFS is a consortium of eight private utility companies that signed a lease to store up to 44,000 tons of fuel rods from its nuclear power reactors above ground in steel casks on 100 acres of the reservation for up to 40 years.

Lawyers for Utah argued that the 1982 Nuclear Waste Policy Act never explicitly granted the Nuclear Regulatory Commission the authority to license "away from reactor" irradiated fuel storage sites operated by private entities. Utah also opposed the dump for safety reasons and argued that a high-level waste dump would have a detrimental effect on the state's image.

The NRC relied on the principle of omission to defend its licensing. NRC attorney Grace Kim said, "If Congress had in fact intended to prohibit, disallow or exclude such facilities, it most likely would have done so in clear and explicit terms. Regardless of how you read the language, there is no such prohibition." The appeals court judges agreed.

The Yucca Mountain site in southern Nevada is the federally-designated dump site for the deadly radioactive waste. The PFS proposal for a "temporary" storage site at Goshute, with a \$3.1 billion price tag, would relieve the utilities of some waste while the legal battle over Yucca Mt. drags on.

The court's ruling may also affect the outcome of a separate case pending before the 10th Circuit U.S. Court of Appeals in Denver. In that case, Utah is appealing a U.S. District Court judge's ruling that a package of laws passed by Utah to block fuel rod storage at Goshute is unconstitutional.

Some tribal members oppose the PFS deal signed by the tribe's chairman. The chairman is currently under federal indictment for alleged fraud and theft.

A last-ditch argument by Utah is that storage of irradiated fuel rods on the Goshute Reservation poses an unacceptable risk because of the nearby Air Force test and training range. Stray bombs, errant planes or wayward missiles could crash the site, destroy casks and release catastrophic amounts of radiation. Last year, the Atomic Safety and Licensing Board agreed that these risks were too great, halted the dump proposal, and postponed further arguments until later this year.

"The EPA's Yucca Mountain rule assumes the proposed repository will leak and inappropriately allows the Energy Department to rely on dilution in order to meet national standards. The agency should not be permitted to misuse its discretionary powers to undermine the Safe Drinking Water Act," said Fettus.

Nevada also has a groundwater protection lawsuit against the EPA, while the industry's Nuclear Energy Institute has sued the EPA claiming the standard is too stringent.

The 12 consolidated cases involve constitutional authority, site suitability, environmental contamination, official site recommendations, and the Nuclear Regulatory Commission's (NRC's) licensing standards.

The constitutional case is that under the Tenth Amendment, 49 states cannot gang up on a politically weak state to impose an unwanted burden without a compelling, rational basis. The coalition also argued that applying a set of weaker rules at Yucca, while adhering to more stringent regulations at other sites in the U.S. is unfair and illegal.

Nevada and the coalition also argued that changing the site requirements at the very last moment, as the DOE has done, violated the 1982 Nuclear Waste Policy Act (NWPA). The Act required that a deep geologic repository isolate waste from the environment. A major DOE study in 1980 reaffirmed the importance of such isolation. The legislative history of the law clearly states that geologic isolation should hold for up to 250,000 years. However, a series of DOE tests between 1996 and 2000 revealed that Yucca Mountain's geology cannot isolate the waste.

In 1996, the DOE conducted the first of 17 site suitability tests. This test, on groundwater travel time, showed Yucca to be a miserable failure. The DOE found that in less than 50 years, rainwater had percolated from Yucca's surface to the depth of the test caverns.

Reactors on the Launchpad: Project Prometheus

By Jerry Mechtenberg-Berrigan

On January 6, NASA landed the Mars rover *Spirit*, a six-wheeled, solar-powered SUV able to trek up to 44 yards per day across the Martian surface, collecting soil samples, analyzing geology, taking photographs, and looking for evidence of the previous existence of water. A second rover, *Opportunity*, landed on the opposite side of the Red Planet 19 days later and likewise set to work.

President Bush spoke at NASA headquarters January 14 and plucked the national heartstrings. "The desire to explore and understand is part of our character," he crooned. Space travel, "improves our lives and lifts our national spirit... [Still] the thirst for human knowledge cannot be satisfied by even the most vivid pictures."

Bush called for the quick resumption of Space Shuttle missions and for replacing the Shuttle with a "Crew Exploration Vehicle" (CEV) by 2008. The CEV, according to Bush, will begin ferrying humans to the moon by 2015. Thereafter the U.S. will construct a lunar base where mining operations will commence and from which missions will be launched "to Mars and beyond."

Public opinion polls revealed a distinct lack of public enthusiasm — as low as 9% in a Time/CNN poll — for spending billions of dollars to send people to Mars. In his State of the Union address, one week after his appearance at NASA, Bush made no mention of Mars, the moon or space travel. Some observers point to a short attention span and lack of focus on the part of the White House, but there's more to it. Every goal Bush set in his January 14 speech has a nuclear reactor-powered engine, according to the folks at NASA. The nuclear-powered plan goes forward as we speak, but quietly. It's an election year.

In February, Bush asked Congress for \$480 million for Project Prometheus, formerly known as the Nuclear Systems Initiative. In Greek mythology Prometheus stole fire from the gods and gave it to humans. "The Nuclear Systems Initiative was a useful title," explains the NASA website. "Today, only nuclear power can enable scientifically vital, but challenging missions." The European Space Agency just proved this claim to be a fraud by launching a completely solar powered vehicle into deep space.

Opponents of nuclearizing space travel warn of the threat to public safety of putting reactors on launch pads. If a rocket or spacecraft carrying a significant quantity of uranium or plutonium fuel were to explode after launch (does the name *Challenger* ring a bell?), or burn up during a speed-boosting "flyby" around the Earth, the results would be catastrophic.

Bush has requested \$3 billion over five years for Prometheus, but if the past is instructive we can expect the cost to balloon exponentially. The International Space Station, approved with an \$8 billion price tag, is running at \$32 billion and isn't finished yet. "The belief is that if you really tell people what your honest estimates are, they're not going to approve it," said Roger Launius, former chief historian at NASA. When George H.W. Bush proposed a \$400 billion Moon-Mars expedition in 1989, it was dropped.

The environmental case is that the DOE has violated the National Environmental Policy Act by failing to answer basic questions about the proposed dump's design and transport plan.

Nevada's case against last year's congressional approval of the Yucca site is simple: This recommendation was based on flawed and incomplete analyses and relied on prohibited rule changes.

Nevada also argues that the NRC's Yucca licensing rules violate the NWPA and Atomic Energy Act because the 10,000-year regulatory cutoff would not protect Nevadans from Yucca's peak doses; no minimum requirements for geologic suitability are established; defense-in-depth through application of "multiple barriers" (both natural geology and cask engineering) is not required.

The Appeals Court decision may be issued by summer 2004. The court could kill the Yucca dump for good, or may cause major delays for the project if the more stringent original regulations are required of the federal agencies involved. If not blocked by the court, the DOE has announced it will file its application to the NRC for a construction/operating license by the end of 2004.

Opponents are gearing up to challenge the NRC's licensing process on procedural, technical and safety grounds.

The licensing process could last three to four years, with hearings in Nevada and perhaps Washington, DC already, the electronic docket for the NRC's Yucca Mt. licensing is a whopping 42 million pages.

Kevin Kamps is an antinuclear activist and Radioactive Waste Specialist at Nuclear Information & Resource Service in Washington, DC.

NASA will work in conjunction with the U.S. Dept. of Energy and the Naval Reactors Division to develop a "lightweight reactor." Naval Reactors Division is responsible for over 100 operating propulsion reactors, powering Navy ships and submarines.

The flagship mission under Project Prometheus is the "Jupiter Icy Moons Orbiter" (JIMO), set to liftoff by 2015. The mission's objective is "to search for signs of past and present life and to characterize the habitability of the Jovian moons with emphasis on Europa," according to NASA.

The big three aerospace corporations are already profiting from the Prometheus scheme. Lockheed Martin, Boeing, and Northrop Grumman have all been awarded two-part, \$11 million research grants for the JIMO power plant. NASA will judge between the three and award the contract to the winner as early as next January.

In January 2002, the NASA director, Sean O'Keefe, told the *Los Angeles Times*, "We're talking about doing something on a very aggressive schedule ... to develop the capabilities for nuclear propulsion ... [and] to have a mission using the technology within this decade." NASA has tested two candidate power reactors thus far: a High Power Electric Propulsion (HiPEP) "nuclear ion engine" at NASA Glenn Research Center in Cleveland last November, and a Nuclear Electric Xenon Ion System (NEXIS) at NASA Jet Propulsion Laboratory in Pasadena, Calif., last December.

What You Can Do

Research and development of the HiPEP engine is being carried out around the country: In Cleveland, at GRC and at Ohio Aerospace Institute; at Aerojet in Redmond, Wash.; Boeing in Torrance, CA; at the Univ. of Michigan, Ann Arbor; the Univ. of Wisconsin, Madison; and at Colorado State Univ. in Fort Collins. If any of these facilities are near you, consider going there with some friends and some signs. Likewise, protest at your local NASA facility for even pursuing this dangerous idea. Urge your congressional delegation to vote against nukes in space, and in this election year support candidates who will put nuclear space schemes on the shelf where they belong.

For more information, see the website of the Global Network Against Weapons and Nuclear Power in Space (www.space4peace.org). It may be equally instructive to visit www.nuclearspace.com, a slick industry website with flashy diagrams and loony ideas promoted incoherently.

Global Network
12th Annual International Conference
Resisting Empire:
Understanding the Role
of Space in U.S. Global Domination

Keynote speaker: Dr. Helen Caldicott
April 23-25, 2004
Woodford Congregational Church
Portland, Maine

Global Network Against Weapons
& Nuclear Power in Space
P.O. Box 652 Brunswick, ME 04011
www.space4peace.org • (207) 729-0517

NUCLEAR SHORTS

Nuclear Waste Shipping Accident

ROWE, Mass. — On March 3, a cargo container holding 46,000 pounds of radioactively contaminated construction debris from the decommissioned Yankee Rowe reactor spilled while being transported on a flat-bed. The container slid off the truck when a tie-down holding the load snapped, spilling the concrete, steel and re-bar onto the road. Ten to 20 shipments of waste are moving every day from the decommissioned reactor site to a railway stop, where it is then shipped by rail to a dump in Utah. Company workers gathered up the material and brought it back to the reactor site. A spokeswoman for Yankee Atomic Electric Co. said, "The radioactivity is so low that there is no impact to [those who live nearby] or the environment or the community." However, a hazmat team was not called to assess contamination.

Deb Katz, a Rowe, Mass., resident and director of the Citizens Awareness Network, says that the utility's answers are inadequate. "If it was really not radioactive, they wouldn't have to ship it to Utah," she said. "This is the company that had the spill telling hazmat there's no danger, and that's not very comforting." Over 2,000 similar shipments are planned before Yankee-Rowe is fully decommissioned in 2005.

—North Adams Transcript, March 3, 2004; NukeNet, Jan. 20, 2004

U.S. Nuclear Arsenal: 140,000 Hiroshimas

CHICAGO, Ill. — From 1945 to 1990, the U.S. produced approximately 70,000 nuclear warheads for more than 120 weapons systems. Annual production rates rose dramatically during the 1950s. In 1959 and 1960 respectively, exactly 7,088 and 7,178 new bombs were turned out — about 28 warheads each workday. By 1967, the stockpile reached a historic high with approximately 32,000 warheads of 30 different types, from sub-kiloton landmines (atomic demolition munitions) to multimegaton strategic bombs. The historic high for megatonnage was reached in 1960 with nearly 20,500 megatons (that's 20 billion tons, or 40 trillion pounds, of TNT) — the equivalent of about 1,400,000 Hiroshima-sized bombs. Today the total is about 1/10 the 1960 level, or about 2,000 megatons, or 140,000 Hiroshimas. —Bulletin of the Atomic Scientists, Jan./Feb. 2004

Pentagon: Climate Change Worse Than Terrorism

WASHINGTON, D.C. — While the White House warns of the danger to civilization posed by gay marriages, a report commissioned by the Pentagon and kept secret for four months warns that impending climate changes are a far greater threat than terrorism. The study, entitled "An Abrupt Climate Change Scenario and Its Implications for U.S. National Security," predicts that "abrupt climate change could bring the planet to the edge of anarchy as countries develop a nuclear threat to defend and secure dwindling food, water and energy supplies." Environmental crises may lead to global catastrophes that will cost millions of lives. The report did not mention that the Pentagon is the world's biggest consumer of petroleum products.

Describing nuclear weapons proliferation as "inevitable," the report states that "nuclear energy will become a critical source of power, and this will accelerate nuclear proliferation as countries develop enrichment and reprocessing capabilities to ensure their national security." The authors predict that Japan, South Korea, Germany, Egypt and North Korea will all develop nuclear arsenals. —The Sunflower, Nuclear Age Peace Foundation, March 2004

New Bomb-building at Lawrence Livermore

LIVERMORE, Calif. — In February, the Energy Department released a Supplemental Environmental Impact Statement (SEIS) on Lawrence Livermore Laboratory's plans for increased production of plutonium, radioactive tritium, and an overall boost to weapons related programs.

The proposal would more than double production of plutonium at the lab from 1,540 pounds to 3,300 pounds. It triples the amount that scientists can work with at any one time, from 44 pounds to 132 pounds. One microscopic particle of plutonium can cause lung cancer if inhaled or ingested.

The DOE plan revives the "vapor laser isotope separation" project, a scheme to heat and vaporize plutonium and then shoot toxic-dye laser beams through the vapor to separate plutonium isotopes. The DOE proposes a ten-fold increase in the manufacture of radioactive tritium to be used with the National Ignition Facility megalaser, and makes Lawrence Livermore the site of new technologies for manufacturing plutonium pits.

A previous environmental impact statement predicted an increased risk to the health of those living and working nearby. The SEIS downplays this heightened risk for workers and the local population. The DOE report failed to look at the unusually high breast cancer rates in the San Francisco Bay Area. Women living in this area have a 1 in 7 chance of contracting breast cancer. —Contra Costa Times, Feb. 21, 2004

Toxic Waste Dumps Renamed

VIEQUES, Puerto Rico — More than 10,000 residents and activists from around the world helped close the U.S. bombing range on the Puerto Rican island of Vieques. The U.S. Navy has used about 80 percent of the island for bombing exercises. More than 1,100 people were arrested in a civil

resistance campaign to end the war games. The bombed areas are now a radioactive and toxic mess. Pentagon public relations officers have renamed half of the area a "wildlife refuge" and turned it over to the U.S. Fish and Wildlife Service. The Pentagon has similarly renamed radioactively contaminated sites in Colorado and Idaho. The Rocky Flats plutonium trigger factory near Denver, with about two million cubic feet of buried nuclear waste, is now an "Environmental Technology Site." And the Idaho National Laboratory, where for 40 years the military did chemical separation of plutonium from irradiated fuel rods, has seven million cubic feet of highly radioactive waste and soil on site. It's now officially the "Idaho National Engineering and Environmental Laboratory." —WISE Uranium Project, Mar. 8, 2004; Washington Post, May 15, 2001; Deadly Defense, Radioactive Waste Campaign, 1988, p. 50 & 89.

Earthquake Shakes Reactor and its Cooling Pond

SAN LUIS OBISPO, Calif. — On Dec. 22, 2003, a magnitude 6.5 earthquake rattled California's central coast and shook Diablo Canyon's two nuclear reactors near here. The quake's epicenter was 35 miles north of the reactors and workers reported strong shaking of the site. The quake was not even along the fault line upon which the reactors were built. An employee, writing on a nuclear worker's anonymous chat site, says, "The spent fuel pool water splashed around a bit." "Spent" fuel is the hot waste removed from a reactor and is up to a million times more radioactive than fresh fuel. The quaking reactors continued to run at full power while the NRC and operators at Pacific Gas and Electric Company claimed they found no damage. —San Luis Obispo Tribune, Dec. 22, 2003; Jim Zimmerlin, www.zimfamilycookers.com/jim.html

Two Reactors Spring Cooling Water Leaks

SENECA, South Carolina; BRIDGEMAN, Michigan — The Oconee 1 nuclear reactor, shut down in September for refueling, sprang a leak in its cooling system and had to be shut down three times after restart in December. The company claims "no radiation release" as the leak occurred in the reactor's containment system. The leak's rate was 0.3 gallons per minute, but increased to about .778 gpm after the unit's power was increased to about 26 percent of capacity. The company reduced power to 17 percent to allow workers to enter the containment building to find the source of the leak described as emanating from a "steam generator cavity."

The Cook reactor in Michigan also had a cooling water leak in December, which forced the reactor into emergency operations. Radioactive water poured onto the floor, contaminating the containment building. Cook operators did not reduce the reactor's power outage and announced that the leak was repaired in 90 minutes. —Reuters, Jan. 9, 2004; AP, Dec. 20, 2003

Plutonium in Children's Teeth

CUMBRIA, England — Traces of plutonium have been found in the teeth of children living near the Sellafield nuclear site in Cumbria, England. Those living closer to Sellafield had more than twice the plutonium of those living 140 miles away. BNFL, the company that operates Sellafield, denies the contamination of the groundwater with technetium-99 and tritium stems from their site.

British Public Health Minister Melanie Johnson alleged that the plutonium does not pose a health threat. Public health experts challenged Johnson's opinion, saying that any amount of plutonium is carcinogenic. BNFL runs the facility and operates nuclear facilities in the U.S. and around the world. It is a member of the Louisiana Energy Services consortium that is planning to construct a uranium enrichment facility near Eunice, New Mexico.

BNFL representatives claim that the plutonium found in the teeth is a result of fallout from nuclear weapons testing. The plutonium in the children's teeth however contains an isotope not found in bomb test fallout. The alpha emitting plutonium found in the kids' teeth most likely has also contaminated the children's bones and increases the risk of childhood leukemia. —The London Observer, Nov. 30, 2003; Concerned Citizens for Nuclear Safety, Dec. 27, 2003; London Herald, Dec. 14, 2003

Concord, Massachusetts – Radioactive Superfund Site

CONCORD, Mass. — Main Street is radioactive in Concord. Starmet Corp. and others produced depleted uranium (DU) munitions and armor at 2229 Main, and more than 3,800 barrels of radioactive and toxic waste are buried here that will take at least 10 years and \$50 million to clean up. "There is at least 20 times more DU on and under Starmet's 46 acres on Main Street, than the 340 tons that were fired into Iraq during the 1991 Gulf War," reports Ed Ericson, Jr. A recently discovered dump contains even more radioactive substances.

The company is responsible for contaminating the soil more than a mile from the site, and at least two wells have been poisoned. A 1993 epidemiological study found that area residents suffer higher rates of cancer than the state average. Massachusetts has sued Starmet to enforce state law against radioactive dumping, but it's having a hard time collecting. The company declared bankruptcy in 2002. —Emagazine.com, March 5, 2004

Women DOE Employees Studied

BUFFALO, New York — The Energy Dept. has historically employed over 80,000 women, but it has never studied the health effects of their nuclear work because only small numbers of females worked at any one facility. Dr. Gregg Wilkinson from State University of New York at Buffalo developed risk estimates for exposure to ionizing radiation and conducted a mortality study of women employed at 12 Energy Dept. sites. External ionizing radiation exposure in these workers appeared to be associated with increased relative risk for leukemia and breast cancer, and increased risks for all cancers combined. —National Institute for Occupational Safety and Health/Health-Related Energy Research Branch, 2000

Lancet: Medical X-rays Causing Cancers

LONDON — Radiation from dentist offices and hospitals causes 700 of the 124,000 cancer cases that occur in England every year, according to an Oxford University study published in the medical journal Lancet.

In the UK, the National Radiological Protection Board (NRPB) has monitored the doses of radiation used in X-ray examinations for more than a decade. Advancing technology has halved the dose used in X-ray examinations since the early 1990s. However, the board found a 20-fold variance in the doses delivered by different hospitals in its latest review. The NRPB says a single Computed Tomography (CT) scan — which takes a series of X-ray pictures through the body — involves a dose of radiation up to 1,000 times that of a chest X-ray. Two German radiology experts, commenting on the new study, say that up to 30 percent of chest X-rays might not be necessary. —The London Independent, Jan. 30, 2004

"Chernobyl Heart" Wins Academy Award

LOS ANGELES — An independent film on the continuing effects of the world's worst nuclear disaster on the children of Belarus, received the Academy Award for Documentary Short Subject. The 39-minute "Chernobyl Heart" highlights the work of the Chernobyl Children's Project International, a nonprofit based in New York City, and its efforts to provide humanitarian and medical aid to the four million children that UN recognizes as suffering from the disaster. On April 26, 1986, reactor No. 4 of the Chernobyl station in Ukraine abruptly overheated, exploded and burned out of control for two weeks, spewing radioactive pollution around the world. The catastrophe remains the worst civilian radiation disaster in history. —Chernobyl Children's Project International, 217 East 86th Street, PMB #275, New York, NY 10028; Email: info@ccp-intl.org; Web: ccp-intl.org

Resources:

- * Campaign Against DU, Bridge 5 Mill, 22a Beswick St. Ancoats, Manchester M47HS, England; Phone: (+44) 0161-273-8293 Email: info@cadu.org.uk; Web: cadu.org.uk
- * Center for Food Safety, 660 Penn. Ave., SE, Suite 302, Washington, DC 20003; Web: centerforfoodsafety.org; (800) 600-6664
- * Citizens Awareness Network, PO Box 83, Shelburne Falls, MA 01370; (413) 339-5785; Email: can@nukebusters.org
- * Citizens for Peace in Space, PO Box 15, Colorado Springs, CO 80901; (719) 389-0644
- * Concerned Citizens for Nuclear Safety, 107 Cienega Santa Fe, NM 87501, (505) 986-1973, Web: nuclearactive.org
- * Depleted Uranium Center Japan, 1-3-5 Sakuradai, Nerima-KU, Tokyo 176-0002, Japan; Email: tr2k-tnk@asahi-net.or.jp; Web: jca.apc.org/DUCJ
- * Global Network Against Weapons and Nuclear Power in Space, PO Box 652, Brunswick, ME 04011 (207) 729-0517; Web: space4peace.org; Email: globalnet@mindspring.com
- * Institute for Energy & Environmental Research, 6935 Kayrek Ave., Suite 204, Tacoma Park, MD 20912, (301) 270-5500; Email: ieer@ieer.org, Web: www.ieer.org
- * Nuclear Information and Resource Service, 1424 16th St. NW, #404, Washington, DC 20236; (202) 0002; Email: nirsnet@nirs.org; Web: www.nirs.org
- * Public Citizen, 215 Penn. Ave. SE Washington, DC 20003; (202) 454-5130; <www.citizen.org/cnep>
- * Radiation and Public Health Project, 786 Carroll St. Brooklyn, NY 11215; (718) 587-9825; Email: odiejoe@aol.com; Web: radiation.com
- * Union of Concerned Scientists, 2 Brattle Square Cambridge, MA 02238; (617) 547-5552; Web: ucsusa.org
- * War Resisters League, 339 Lafayette St., New York, NY 10012; (212) 228-0450; www.warresisters.org
- * Uranium Medical Research Center, 38 Steeplechase Ave., Aurora, Ontario L4G 6W5; Canada; Email: info@umrc.net; (905) 713-1151

Deadly Deceit: Debunking the Myths of Nuclear

By Molly Mechtenberg-Berrigan

Note: This article was inspired by a 1998 piece written by Friends of the Earth Scotland entitled "Nuclear Power is No Solution to Climate Change: Exposing the Myths." I have updated and reworked their material and rewritten the piece from a U.S. perspective.

The Bush Administration is pushing legislation that promotes the development and construction of new nuclear power reactors to meet the nation's increasing energy usage. The administration's National Energy Policy report, released in May 2001, recommended "...that the President support the expansion of nuclear energy in the United States as a major component of our national energy policy." In May 2001, the Nuclear Energy Institute, an industry trade group, released a plan, *Vision 20/20*, whose cornerstone is adding 50,000 megawatts of new nuclear-powered generating capacity to the national grid by 2020 — at least 50 large reactors. Just months later the Energy Department released a complementary plan called *A Roadmap to Deploy New Nuclear Power Plants in the United States by 2010*, which embraced *Vision 20/20*.

Then, in February 2002, Energy Secretary Spencer Abraham unveiled *Nuclear Power 2010*, which calls for a joint government/industry cost-shared effort to identify sites for new nuclear reactors and develop advanced reactor technologies. Under this program, up to half the development and construction costs for new reactors would be financed by the Energy Dept. (DOE). This government bailout of private industry would come of course at taxpayer expense.

On January 9, 2004, Secretary Abraham said during a visit to Japan, "Our nations both must work to ensure that nuclear power continues to play a key role in our respective energy mixes. You and I know that nuclear power is safe. It is reliable. It is efficient. It is affordable. It is critical to dealing with global issues of climate change, the environment, and energy and economic security."

Secretary Abraham's tired mantra sums up the myths that protect the continued use and expansion of nuclear power: 1) Nuclear power is economically viable; 2) Nuclear power does not produce greenhouse gases; 3) Nuclear power is safe; 4) Nuclear power is sustainable; 5) Nuclear power is a vital contributor to the national energy supply.

To achieve a national energy policy that is environmentally viable and nationally secure, we must be aware of nuclear power's drastic shortcomings. As the nuclear industry, the DOE, and the Bush Administration promote their dreams of nuclear revival, they must be confronted by a national grass-roots campaign to expose the lies upon which they intend to build more cancer factories.

Myth #1: Nuclear Power is Economically Competitive

Nuclear power could not survive in a competitive energy market without huge government subsidies. The massive costs of waste disposal, reactor decommissioning and accident liability are barely discussed at the outset but are paid for later by taxpayers.

Waste Management

Dealing with radioactive waste from nuclear power production is colossally expensive. As nuclear stations run out of on-site storage space, the government is preparing an underground repository for high-level radioactive waste fuel rods. The controversial Yucca Mountain site is the prime candidate for this dump, despite evidence it is not geologically sound. The 2004 Energy and Water Bill provided Yucca Mountain with \$580 million for further research and development. This figure represents a \$123 million increase over the 2003 budget. In the proposed 2005 budget, \$880 million is requested. If approved, the Yucca Mountain project will cost \$2.4 million per day! The total cost for construction of the site is estimated at \$58 billion. Federal lawsuits now hold up the licensing process.

Reactor Decommissioning

Reactor decommissioning costs remain a major uncertainty. Eventually, all nuclear power stations must shut down. Twenty-three nuclear reactors in the U.S. are currently in some stage of decommissioning. Utility companies, federal and state regulators and the reactors' host communities are faced with decisions regarding the future of the on-site accumulation of highly radioactive fuel, massive quantities of radioactive equipment and components, mixed hazardous wastes and a mountain of contaminated concrete and debris from the reactor buildings. The earth and groundwater beneath the facilities must be surveyed for radiation contamination. In sum, responsible decommissioning involves close monitoring for many years at huge cost.

Years ago, observers were concerned that reactor decommissioning funds could not possibly be met by the utilities. The NRC currently requires nuclear utilities to make regular contributions from rate-payers' bills into special trust funds established in external accounts. Utilities must then report regularly to the NRC on the status of their accounts. The NRC requires a utility operating a pressurized water reactor to accrue a minimum of \$289 million; \$359 million for a boiling water reactor. A December 2003 report released by the General Accounting Office estimated that the combined value of all owners' decommissioning fund accounts in 2000

— about \$27 billion — was less than half of what is needed to ensure that adequate funds are available for eventual decommissioning. A review of the early plant closures (Yankee Rowe, Maine Yankee, Trojan and the two Zion nuclear power stations) indicated that consumers paid for only the portion of decommissioning that accrued from utility trust funds. As much as 50 percent of the remaining projected costs were left to future ratepayers or taxpayers who won't get one watt from the retired nuclear power stations.

Yankee Rowe, in western Massachusetts, was the third nuclear power station built in the U.S. It was a relatively small, inexpensive reactor, costing only \$39 million. After being permanently shut down in 1992 after 31 years of operation, the decommissioning process began. Costs spiraled from the estimated \$120 million to \$450 million. Two hundred and sixty-six thousand pounds of radioactive waste remain on site and continue to escalate decommissioning costs. Increased security since 9/11 has driven waste storage costs from \$71 million to \$191 million through 2010. These storage costs are passed on to customers.

Forbes, February 1985

Nuclear Follies

The failure of the U.S. nuclear power program ranks at 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. Without even recognizing the risks, the U.S. electric power industry undertook a commitment bigger than the space program or the Vietnam War . . .

Accident Liability

If the government required utilities to carry comprehensive insurance against nuclear accidents, the cost of electricity from nuclear power would increase many orders of magnitude. The Price-Anderson Act (PAA), established in 1957, limits the industry's liability to \$9.1 billion — just 2% of the estimated \$560 billion in damages that a serious nuclear disaster would incur. The PAA requires that reactor operators carry only \$200 million in private insurance for each reactor. The 2004 Energy Bill currently stalled in Congress would extend the PAA, possibly permanently. By allowing their operators to insure commercial reactors at a rate 62 times below the calculated cost of serious accidents, the PAA leaves taxpayers on the hook for billions of dollars in the event of another Three Mile Island disaster.

Myth #2: Nuclear Power Does Not Produce Greenhouse or Ozone-depleting Pollutants

The nuclear industry is hoping to manipulate concern over climate change to win support for more nuclear power. The DOE states, "Since nuclear power plants do not emit the harmful gases that could cause climate change, expanded use of nuclear power helps meet national energy and environmental goals." But they do and it won't.

Nuclear energy is obtained from a lengthy fuel "life-cycle" which produces millions of tons of air pollution. The uranium fuel, reactor and waste chain includes mining, milling, fuel production and transport, plant construction and decommissioning, plus waste management, hauling and storage. All these processes release carbon dioxide.

Uranium mining is one of the most fossil fuel-dependent industrial operations. As demand for uranium grows, CO2 emissions are expected to rise due to the impoverishment of uranium sources. Over time, there will be a gradual increase in the amount of energy needed to extract the same amount of useful uranium. Two U.S. uranium enrichment plants (Portsmouth, Ohio, and Paducah, Kentucky), released 818,000 pounds of freon (CFC-114) in 1999. Freon, a known

ozone depleter, is used to cool equipment and uranium hexafluoride in the facilities, and escapes into the atmosphere through leaks in piping. The leakage amounts to 88 percent of CFC-14 emissions from U.S. industrial sources, and an estimated 14 percent of worldwide emissions.

According to a 1997 study done at the Oko Institute in Bonn, Germany, a nuclear power station of standard size (1250 MW) indirectly emits between 376 billion and 1300 billion tons of CO2 into the atmosphere per year — after taking into account the whole fuel-to-waste cycle. Compared to renewable energy, nuclear power releases four to five times more CO2 per unit of energy produced. When the unprecedented toxicity of the radioactive fuel chain is taken into account, the DOE's appeal to our concern for the environment is unmasked as a sham.

Myth #3: Nuclear Power is Safe

Problems of security, safety and environmental impact have been perennial black eyes for the nuclear industry. Many countries, including the U.K., Germany, Belgium, the Netherlands, Sweden and Turkey have decided against the continued use and expansion of nuclear power on these grounds.

Just one month after the British business journal *The Economist* declared that the technology was "as safe as a chocolate factory," the catastrophic nuclear accident at Chernobyl contaminated the entire northern hemisphere. The accident caused an immediate threat to the lives of 130,000 people living within a 19-mile radius. Over 400,000 were forced to evacuate and have been permanently relocated. Reuters reported that 64,000 square miles were contaminated. Forecasts of additional cancer deaths attributable to Chernobyl range from 5,000 to 75,000 or more. A UN study found that 14 years after the explosion, Belarus, the country most heavily hit by Chernobyl's radiation, considers 20 percent of its forests contaminated and prohibits the use of 3,720 square miles of its land for food production. Nine percent of all government spending goes to the direct consequences of the disaster.

It seems that nuclear power depends on a charade of perception versus reality. This is exemplified by the near-disaster at the Davis-Besse reactor in Ohio in February 2002. During a routine checkup, cameras revealed that corrosion had chewed a hole into and almost punctured the reactor head. The corroded steel was 3/16 of an inch from causing a catastrophic meltdown. Davis-Besse had earned a near perfect score on evaluations from the NRC in the years leading up to the discovery. The vessel head was entirely replaced.

In-depth studies in the U.S. challenge the claim that exposure to low-level doses of radiation are safe. A 1997 study funded by the DOE and carried out by researchers at the University of California Los Angeles reviewed the medical

and personnel records of 4,563 employees at the DOE/Rocketdyne facility at Santa Susana, California. The study's oversight panel reached the following conclusions: cancer deaths were attributable to radiation doses substantially below U.S. standards and the risk of "low-dose" radiation was at least six to eight times greater than previously assumed.

The Radiation and Public Health Project (RPHP) is a U.S.-based organization that has examined levels in children's teeth of strontium-90, a radioactive isotope produced and emitted by nuclear reactors. The project has collected more than 4,000 baby teeth, mostly from children born since the mid-1980's who lived close to nuclear reactors. The results of their work show a correlation between childhood cancer and strontium-90 levels. The RPHP has also documented a reduction in infant mortality rates after nearby reactors close. RPHP's studies, published in the scientific journal *Environmental Epidemiology and Toxicology* and elsewhere, demolish the claim by the NRC that low levels of radiation emitted by properly operating power reactors are too low to cause health effects.

There is also the disaster risk from nuclear proliferation and trafficking. The UN Intergovernmental Panel on Climate Change argues that if nuclear power were to be used extensively to tackle climate change, "The security threat . . . would be colossal." There is concern that nuclear reactor sites are likely targets for terrorists. The magnitude of such an attack could exceed several thousand deaths and the immediate cost of tens of billions of dollars.

Myth #4: Nuclear Power is Sustainable

The principle of sustainability, as laid out in Agenda 21 at the 1997 Earth Summit, is defined as "...development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Nuclear power jeopardizes the viability of future generations by producing deadly radioactive wastes that threaten permanent contamination of the biosphere and through legally permitted reactor emissions and because radiological "incidents" occur on a regular basis.

ar Power

In 1976, the U.K. Royal Commission on Environmental Pollution warned that it is "irresponsible and morally wrong to commit future generations to the consequences of fission power on a massive scale unless it has been demonstrated beyond reasonable doubt that at least one method exists for the safe isolation of these wastes for the indefinite future." Over twenty-five years later no such method has been found.

The various forms of radioactive contamination that result from nuclear energy production are known to cause cancer, birth defects, and respiratory illnesses. Nuclear reactors routinely emit large quantities of radioactive isotopes through their cooling systems. A typical 1000-megawatt pressurized water reactor takes in 20,000 gallons of river, lake or ocean water per minute for cooling, circulates it through a 50-mile maze of pipes, returns 5,000 gallons per minute to the same body of water, and releases the remainder to the atmosphere as vapor. The discharged water and steam are contaminated with radioactive elements in amounts that are not precisely known.

The list of "incidents" in which radiation is released into water, air and soil is long and growing. To give one example, on Feb. 15, 2000, a ruptured tube of primary cooling water at the Indian Point reactor, 20 miles north of New York City, sent nearly 20,000 gallons of water contaminated with tritium, cesium, iodine and radioactive gases into the secondary steam generating system. Subsequently, radioactive steam was released into the atmosphere; contaminated water flowed through storm drains into the Hudson River and Buchanan waterways. R.M. Sievert, a radiologist after whom the radiation measure "sievert" is named, correctly asserted, "There is no known tolerance level for radiation." As our ecosystem continues to be tainted with radioactive isotopes, the devastating health effects of man-made radiation are inevitable and relentless.

Nuclear waste management policies are in disarray, radiation is released on a daily basis into the environment, and there is growing public awareness of and concern over the risks of transporting and storing nuclear waste. Under no circumstances can nuclear power be considered sustainable.

Myth #5: Nuclear Power Makes a Vital Contribution to the Energy Supply

The current administration argues that this country is in need of new power-generating capacity and that nuclear power should play a primary role in meeting an ever-increasing demand for electricity. In June 2003, the American Nuclear Society endorsed the Bush Administration's May 2001 National Energy Policy, stating "... the United States will need about 390,000 megawatts of new generating capacity by 2020 to meet a modest growth in demand for electricity. This corresponds to a 40 percent increase in generation, from about 3.8 trillion kilowatt hours in 2000 to 5.3 trillion kilowatt hours in 2020. We believe that it is in the nation's interest that nuclear should at least maintain its current share of the electricity mix. This represents 40 to 50 large new nuclear power plants to start operation in the next 18 years. Furthermore, we believe that energy policy issues such as energy security and global climate changes will require an increase in the share of nuclear above the current 20 percent."

Despite what the government wants us to believe, nuclear power is not vital to the energy supply. Nuclear power provides only 17 percent of the power supply world-

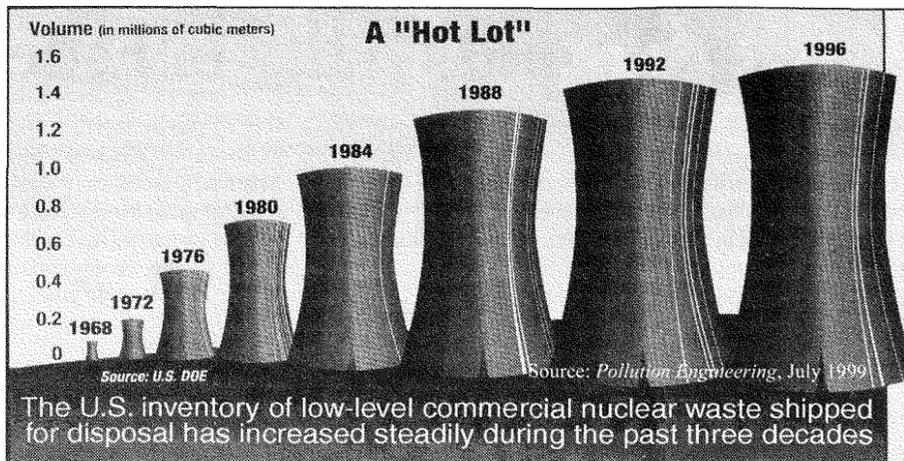
Daily Radioactive Emissions

Nuclear reactors cannot operate without regular, deliberate and legal releases of radioactive water and gas. Radioactive pollution from reactor buildings is needed to control the pressure, temperature and humidity inside, and to keep radiation levels from exceeding government limits for workers.

The Nuclear Regulatory Commission allows radioactive water leaks of up to 10 gallons a minute.

For example, hot radioactive krypton-89, xenon-135, and xenon-137 are released into the atmosphere through vents that are built into the ironically named reactor "containment buildings." Containment buildings are purged several times a year so workers can perform maintenance operations.

Filters catch some gases but not xenon-135. And many radioactive gases decay to solid radioactive particles after they are released. For example, xenon-135 decays to cesium-135 with its radioactive half-life of 3 million years. Xenon-137 decays to cesium-137, which has a 30-year half-life. An isotope is dangerous for roughly 10 times its half-life.



The U.S. inventory of low-level commercial nuclear waste shipped for disposal has increased steadily during the past three decades

wide. Presently, several countries have declared their intent to phase out nuclear power, including the U.K., Germany, Belgium, Turkey, the Netherlands and Sweden. In November 2003, Germany began its phaseout with the closure of the first of its 19 nuclear reactors. This figure will be reduced as one reactor is closed each year. As one-third of all Germany's electricity is currently supplied by nuclear power, the lost energy will be replaced by conservation and renewable energy sources such as wind. "Renewable energies, greater energy efficiency, energy saving and the nuclear phaseout are the cornerstones of a responsible and future-oriented energy policy," said Germany's Environment Minister Jorgen Tritten with the closing of the first reactor.

Energy efficiency and renewable forms of energy production have been ridiculed by the U.S. and under-funded by the government. The nuclear power industry has received \$150 billion in tax subsidies from the federal government since 1947, while renewables have received only \$5 billion — 1/30th of nuclear subsidies.

A November 2000 DOE study, titled *Scenarios for a Clean Energy Future*, found that energy efficiency and renewable power could meet 60 percent of the nation's need for new power capacity over the next 20 years. A 2001 study conducted by the Safe Energy Communication Council (SECC), a policy watchdog coalition, found that energy efficiency could replace all the electricity currently supplied by nuclear power for the same cost as continuing to operate existing U.S. nuclear reactors. The SECC points out that government, industry and independent analyses have all determined that cost-effective energy efficiency improvements could reduce electricity use by 33 to 75 percent nationwide.

The redirection of subsidies, from nuclear power to renewable forms of energy such as solar and wind would reduce the costs of these technologies, making them more competitive and affordable. A 2003 Greenpeace study entitled "Wind vs. Nuclear 2003" contends that for the same investment, wind power creates five times more jobs and generates 2.3 times more electricity than a nuclear reactor. These systems are ready for mass production, but government and business have not been willing to take this step.

Conclusion

Countering the massive propaganda that supports the use and expansion of nuclear power is one of the biggest challenges facing safe energy proponents in the coming years. This country is in need of a long-term energy policy that makes sense. We must create a long-term energy future that is environmentally sustainable and economically viable; one that addresses the problems of climate change, ozone depletion, nuclear proliferation and security all at the same time. Nuclear power doesn't merely worsen these problems; it wastes the material and intellectual resources necessary to solve them.

We are happy to announce the arrival March 12 of eight-pound Amos Philip Mechtenberg-Berrigan born to staffer Molly and her husband Jerry. Congratulations Molly and Jerry!

Commentary

Nuclear Spin Control

But one can rebel equally well against lies as against oppression. —Albert Camus

Confronting lies about nuclear power is part of our work at Nukewatch. We've learned to dig a little deeper when the mantra "no danger to the public" is thrown like a blanket over the latest cancer study or radiation accident.

Commercial newspapers appear eager to clean up nuclear power's image. Acting like public relations officers for local utilities — often their biggest advertisers — editors often amplify happy industry spin and ignore or misreport the bad news.

Take the *St. Paul Pioneer Press*. Its Sept. 20, 1990 front page had the headline, "Study finds no link between nuclear plants, cancer deaths." But the first paragraph says this, "A two-year government study has found a marked increase in leukemia deaths among some people living near Northern States Power (now Excel Energy Co.) Prairie Island nuclear power plant in southeastern Minnesota." But Leukemia is cancer.

The Minneapolis *StarTribune* put the headline "Harsh weather," above its April Fools Day, 1994 report about the deterioration of the concrete shell built over the wrecked Chernobyl reactor site in Ukraine. The headline fooled a few.

Likewise, a long series of stories have heralded a supposed reduction in cancer rates. "Cancer death rates drop," says the Nov. 14, 1996 *New York Times*. "Cancer now on decline in the U.S.," the *Los Angeles Times* said Mar. 13, 1998. "Study finds cancer rates declining," the AP reported May 15, 2000. But in fact these stories were all wrong. "Optimistic reports from the National Cancer Institute" have left a "false impression of a recent decline in cancer incidence," a new NCI analysis showed, the *Wall Street Journal* reported Oct. 17, 2002. "America isn't winning the war on cancer after all."

News of the "significantly high" risk of leukemia deaths among some Prairie Island area residents was buried deep in the *St. Paul Pioneer* article. Then came this whopper: "The leukemia risk for people aged 40 to 59 in [adjacent] counties was 141 percent higher [than average]. Before the plant opened in 1973, the risk was 17 percent lower," the NCI said.

Of course NSP/Excel spokesman Tom Bushee spun the NCI study's results to suit his employer saying "our operating power plants have releases that are so low that one would not expect to see any health effects at all."

"From the data at hand, there was no convincing evidence of any increased risk of death from any of the cancers we surveyed due to living near nuclear facilities," said the NCI study's chief author John Boice.

The subterfuge is that there is a distinction between cancer and leukemia. Of course leukemias are bone and blood cancers by another name.

On March 10, Nukewatch asked experts at the NCI if they make any distinction between cancer and leukemia. Staffer Betsy Duane, of the Division of Cancer Epidemiology and Genetics, answered, "No, no, no." There are many kinds of leukemia, Duane said, but "They're all cancer." —JML

Not Safe, Just Allowable Chronology of External Radiation Exposure Standards

1931-34

US Advisory Committee on X-Ray and Radium Protection (precursor to the National Council on Radiation Protection and Measurements) adopts X-ray "tolerance dose" of 0.1 roentgen per day.

1940-41

US Advisory Committee proposes, but does not implement, lowering the X-ray tolerance dose to 0.02 roentgen per day.

1942

University of Chicago Metallurgical Laboratory adopts a "maximum permissible exposure" standard of 0.1 roentgen per day. Becomes standard for entire Manhattan Project that built first U.S. atom bomb.

1954

Atomic Energy Commission adopts National Bureau of Standards recommended dose limit of 5 rem per year. Sets additional limits for internal exposures at 15 rem per year for most organs.

1959

Dose limit for workers remains 5 rem per year. AEC also adopts dose limits for the public equal to one-tenth of those allowed for workers: 0.5 rem for external exposure; and 1.5 rem for most organs for internal exposure.

Late 1980s - 1990

Department of Energy adopts dose limit for the public of 100 millirem (0.1 rem) per year; dose limit for workers remains 5 rem per year. A new model for calculation of internal doses to workers is adopted, the "committed effective dose equivalent."

1991

International Committee for Radiological Protection recommends worker dose limit be reduced to 2 rem per year. Recommendation is not adopted by DOE.

Source: *Science for Democratic Action*, Vol. 6, No. 2, Nov. 1997, *Institute for Energy & Environmental Research*.

Project ELF Peace Activists Found Guilty in Federal Court

Nagasaki Commemorative Trespass

Twelve people were given trespass citations at Project ELF last August 9 at an event commemorating the 1945 U.S. atomic bombing of Nagasaki, Japan. The twelve included Muriel Fitzgerald of Ironwood, Michigan; Pat Basler, Webster, Wisconsin; Sheila Provencher, South Bend, Indiana; Elizabeth Garcia, Sunrise, Texas; Kitty Ufford-Chase, Tucson, Arizona; Matthew Chandler, Springfield, Oregon; Kryss Chupp, Chicago, Illinois; Mortimer Cushman, LaPoint, Wisconsin; Anthony O'Leary, Duluth, Minnesota; Catherine McClean, Strathroy, Ontario; and Haven and Rose Whiteside of Tampa, Florida. The twelve defendants shared a telephonic arraignment and scheduling conference on October 31, 2003.

On Dec. 12, 2003, Fitzgerald, Basler and Provencher were tried and found guilty by federal Magistrate Stephen Crocker. On February 20, 2004, also in front of Magistrate Crocker, Cushman, Chandler, Chupp, Garcia, McClean, O'Leary and Ufford-Chase were tried and convicted. All were fined \$150.

O'Leary requested jail time to coincide with a 90-day sentence he received in federal court in Georgia for a trespass at School of the Americas. Crocker fined him but set a due date of March 5. O'Leary made it clear he would not pay the fine. He is awaiting a date and destination from the Bureau of Prisons for his three-month jail sentence and hopes to complete a jail term for his ELF trespass at the same time.

Obstruction Charges Dropped

At the time of the arrest at ELF, Elizabeth Garcia presented a card identifying herself as a "WOW" (Women Opposed to War) and Provencher supplied a card distinguishing herself as a "Child of God." Neither gave their legal names. For the acts, both spent a night in the Ashland County jail and received an additional charge of "obstruction." At their respective trials, Magistrate Crocker dis-

missed the additional charges after examining the statute, saying they were not appropriate.

Haven and Rose Whiteside had their case moved to Tampa, Florida, as part of plea bargain. In exchange for a guilty plea, they were sentenced in Tampa on March 10 to \$150 fines which they paid on the way out of the courthouse.

Mortimer Cushman said in his court statement, "It wasn't until we started our murdering in Iraq that I realized my soul was in jeopardy and I had to do something to protect it. ELF was there helping lob missiles into Iraq. The only thing worse than the war is doing nothing to stop it."

Kitty Ufford-Chase quoted Helen Keller as saying, "Security is a superstition. It doesn't exist in nature."

Magistrate Crocker has made it clear that he will fine first-time offenders and give them a period of time in which to pay. However, he added, "repeaters" will be candidates for jail time. While several defendants have made it clear to Crocker that they will not pay a fine, it is not known how the Magistrate will respond to those who refuse to pay the fine. A group of seven will be appearing before Crocker on March 29 for their refusal to pay the fine.

Sentences for the federal trespass conviction have ranged from a fine of \$50 to 60 days in federal custody. Forty-four anti-war activists have been charged in U.S. District Court since Sept. 2001, when the Ashland County District Attorney decided to stop bringing local charges against protesters.

Michele Naar-Obed Receives 30 Days

On Jan. 23, Michele Naar-Obed, of Duluth, Minnesota, was sentenced to 30 days in jail by Federal Magistrate Stephen Crocker in Madison for trespassing at the U.S. Navy's Project ELF. She self-reported to the Chippewa County Jail on Feb. 23 to begin her time.

Naar-Obed was one of ten nuclear weapons opponents cited for trespass on May 10, 2003. She was singled out from the rest of the group because of her extensive prior record of civil disobedience.

Depleted Uranium Weapons Update

By John LaForge

The United States has said it has no plans to remove the debris left over from the depleted uranium weapons it is using in Iraq. It says no clean up is needed because research shows DU has no long-term effects. —BBC, quoted in Campaign Against Depleted Uranium News.

W.H.O. Censored Study of DU Cancer Risk in Iraq
GENEVA — The World Health Organization's chief expert on radiation and health for 11 years and author of an unpublished study has charged that his report — on the cancer risk to civilians in Iraq from breathing uranium-contaminated dust — was deliberately suppressed. The charge is denied by officials at the WHO.

The study by three leading radiation scientists warned that children and adults could contract cancer after inhaling particles of the extremely heavy, armor-piercing projectiles made of uranium-238. Inside the body the radioactive and chemically toxic metal, known commonly as "depleted uranium" (DU), could trigger the growth of malignant tumors, the report warned.

Experts have calculated that between 1,000 and 2,000 tons of DU were used by the U.S. and UK in the bombardment of Iraq last spring, the *Guardian* reported last year.

Dr. Keith Baverstock suspects that the WHO was strong-armed by the powerful pro-nuclear International Atomic Energy Agency (IAEA). "I believe our study was censored and suppressed by the WHO because they didn't like its conclusions. Previous experience suggests that WHO officials were bowing to pressure from the IAEA, whose [purpose] is to promote nuclear power," Baverstock said.

"That is more than unfortunate, as publishing the study would have helped forewarn the authorities of the risks of using DU weapons in Iraq."

Baverstock believes that if the study had been published when it was finished in 2001, there would have been more pressure on the U.S. and UK to avoid or limit the use of DU weapons, and to decontaminate afterwards.

"Our study suggests that the widespread use of DU weapons in Iraq could pose a unique health hazard to the civilian population," Baverstock told the London *Sunday Herald*.

Experts with the United Nations Environment Program have not been allowed by the U.S. occupiers into Iraq to assess the pollution.

DU Profiteer Wins \$30 Million Contract

MINNEAPOLIS, Minn. — The United States' largest assembler of uranium munitions, Alliant Techsystems of Edina, Minnesota, was awarded a \$30 million contract for what appears to be more DU ammunition. The company reported Jan. 8 that, "The dual-purpose warhead provides the firepower necessary to penetrate armor while maintaining its high-explosive capability for use against soft targets."

ATK says that the contract's value "will exceed \$30 million." ATK has previously assembled over 15 million 30mm DU shells for the Air Force.

Alliant's reference to "firepower necessary to penetrate armor" is likely a reference to DU.

Minneapolis anti-DU campaigner Dr. Christine Ziebold reports that ATK has removed all references to DU from its website. The company offers no information on whether or not they are using the toxic, radioactive material. The website editing follows dozens of protests at the company's gates and the European uproar over NATO's use of the weapons. Trace amounts of plutonium were found in DU-contaminated areas of Kosovo.

ATK Ammunition Systems of Arden Hills, Minn., will produce the fuse and projectile assemblies. The site is currently the subject of investigations into contamination caused by decades of weapons development.

ATK is a \$2.2 billion aerospace and weapons manufacturer and employs 12,500 people.

Fear of DU Leads Japanese Troops to Use Dosimeters
BAGHDAD — Responding to concerns over the use of DU rounds by the U.S. during its war on Iraq, Japan is supplying Ground Self-Defense Force troops in Iraq with radiation dosimeters, the *Japan Times* reported.

Defense Agency chief Shigeru Ishiba said that the dosimeters will "allow (the GSDF) to assess the danger" of contamination.

But independent experts lambasted the effort as ineffective. The devices the troops carry will detect only gamma and X-rays, while the most likely danger from DU is posed by alpha rays.

Yuko Fujita, a professor of physics at Keio University who recently toured Iraq, said he was only able to detect gamma rays from heavily contaminated objects such as a destroyed Iraqi tank that was riddled with DU rounds.

"To detect gamma rays, you need to have a large amount of radiation," he said. More threatening are minute alpha particles that can remain in the air. These particles, undetectable by the dosimeters that Self-Defense Forces personnel will carry, are easily inhaled and can spread into a person's internal organs via the circulatory system, he said.

"They are only microns in size and hardly detectable," Fujita said. "But still they pose grave threats to human bodies."

Makoto Yanagida, a member of the Depleted Uranium Center Japan, a non-governmental research group, said the GSDF would need to use higher-grade devices to detect alpha rays emanating from depleted uranium. The dosimeters that "do not work" could "do harm by giving GSDF personnel a false sense of safety," Yanagida said.

Research Team Warns of DU Contamination in Iraq
AURORA, Ontario — Two members of the Canadian-based Uranium Medical Research Center's (UMRC) field investigation team are contaminated with uranium, the center reports. The researchers toured Iraq for 13 days in October 2003, five months after the end of aerial bombing. UMRC's partner laboratory in Germany measured DU in both team members' urine samples.

The contamination of UMRC's team members occurring over a two-week period, many months after the bombardment, represents a risk to civilians, non-governmental organizations' staff, occupying armed forces and foreign contractors and diplomatic staff, the UMRC said.

The UMRC surveyed U.S.- and British-controlled combat areas and bombsites in southern Iraq. Readings taken from destroyed

At the time of her sentencing, Naar-Obed had just returned from a two-week trip to Baghdad, where she witnessed firsthand the effects of the U.S. led war against the people of Iraq. She told Magistrate Crocker that while standing on the edge of an enormous bomb crater she realized how ELF plays a part in the tremendous devastation of innocent people. While ELF was originally designed to communicate with Trident nuclear submarines, it is now known that fast-attack submarines, which were used to launch conventional weapons into Iraq, have ELF receiving antennas.

Naar-Obed challenged Magistrate Crocker to not put his "judicial stamp of approval" on such terrible acts. Crocker commended Naar-Obed for her actions, but once again maintained that the court must remain neutral on the government's weapons policy.

Naar-Obed told Magistrate Crocker she welcomed jail time as an opportunity to pursue "more creative means to change the hearts and minds of those who plan and the people who endorse policies that produce so much death and destruction."

Resentencings to Jail for Refusal to Pay

Kathy Kelly, Nobel Prize nominee, and Father Jerry Zawada, Gail Vaughn, Mike Walli, Scott Mathern-Jacobsen and Greg Boertje all received notice to appear in Federal court starting at 1:00 on March 29 in Madison for resentencing for their refusal to pay a \$150 fine for their trespass at Project ELF.

The peace activists trespassed at Project ELF at two separate events — one on August 9, 2002, the other on May 11 of 2003.

The federal notice says, "In the event the court decides to resentence the defendant to a jail term, defendant should be prepared to be taken immediately into custody to serve the term."



Courtesy of The New Yorker

Iraqi tanks in Basra reveal radiation levels 2,500 times above normal.

Tedd Weymann, of UMRC said, "At one point the readings were so high that an alarm on one of my instruments went off telling me to get back. Yet despite these alarmingly high levels of radiation children play on the tanks or close by."

Pollution from the DU shells put civilians and occupying troops at risk from "alarmingly high" levels of radioactivity, *The London Observer* reported Dec. 14, 2003.

In November 2003, the British Ministry of Defense (MOD) released a formal statement denying UMRC's findings of high levels of radioactivity on battlefields. Since then, the MOD has found unusually high concentrations of uranium excreted in the urine of its 1st Armoured Division troops who served in Basra.

In April 2003, the MOD said it would offer urine tests for DU contamination to all UK soldiers returning from the Gulf and that it would publish the results. Anti-DU campaigners in England objected that the tests are not accurate and are capable of giving a negative result when in fact contamination has occurred.

The MOD's recent findings of troop contamination, coupled with that of the UMRC's staff, demonstrate the need for immediate action to protect exposed Iraqi civilians and foreign personnel in Iraq as well as a supervised environmental clean-up program.

U.S. Troops Unable to Answer DU Questions
VILSECK, Germany — A questionnaire given to U.S. troops returning to Germany after their duty in Iraq raised a few eyebrows, reports the military paper *Stars and Stripes*.

The series of questions regarding their exposure to DU while in Iraq read like this:

*Were you near an armored vehicle that was struck by depleted uranium? *Were you in or near an Abrams tank when it was hit with depleted uranium munitions? *Did you routinely enter vehicles with DU dust to perform maintenance, recovery, or intelligence gathering?*

Most of the soldiers checked blocks stating they hadn't encountered any of that. But the survey raised questions about why the military was asking.

"They're trying to figure out their liability so they don't get sued down the line," said Specialist John Wissinger, 34, of Denver. He said he was around burning vehicles in Iraq but was not sure what type of munitions set them afire, *Stars & Stripes* said.

Giant Irradiation Firm Bankrupt

By Bonnie Urfer

Irradiating food isn't the only unethical practice of which San Diego, California based SureBeam is guilty. The company has misled the public about the safety of irradiated food, lied to shareholders, used improper accounting practices, failed to cooperate with the permitting process at its Illinois site, and deliberately deceived consumers by publishing information comparing food irradiation to milk pasteurization.

SureBeam filed for bankruptcy and stopped operations January 16, 2004, as its leading lender demanded payment. No other financial backers offered to help the sinking business.

Nearly 20 class action lawsuits have been brought on behalf of public investors who purchased shares of SureBeam Corporation between March 2001 and August 2003. The complaints charge SureBeam and some of the company's executive officers with violations of the Securities and Exchange Act of 1934 and Security and Exchange Commission Rules. The lawsuits allege that SureBeam falsely reported favorable financial results in its official filings, press releases and other public statements. The fraud was committed by among other things artificially inflating the company's revenue and earnings. After SureBeam failed to file quarterly earnings reports the company was dropped from the NASDAQ listing.

In 2001, SureBeam began building its Glendale Heights, Illinois irradiation facility without receiving necessary air pollution permits from the state. The company only applied for a permit to vent ozone air after a state agency ordered it to do so under pressure from a local citizens' group.

SureBeam was spun off by Titan Corp., the giant military contractor. Titan kept close ties with SureBeam, extending a \$50 million line of credit to the company. SureBeam still owes Titan \$25 million and it expects to recoup the money in asset sales as a result of the bankruptcy.

SureBeam has facilities in Sioux City, Iowa, Glendale Heights, Illinois and Hilo, Hawaii. Last year the FDA

refused to approve the irradiation of ready-to-eat foods (hotdogs, deli meats and frozen entrees) a move that SureBeam hoped would give it a boost.

Approximately 50 irradiation facilities operate in the country zapping beef, chicken, spices, some fruit and vegetables and medical supplies. The process uses one of three methods — cobalt-60, X-rays or electron beams. Each process produces gamma rays that shoot through food or other goods. Irradiation uses ionizing radiation that alters the molecular structure of food in an attempt to kill pathogens and insects. The process can destroy nutrients, change the taste, smell and appearance of food and produces new chemical compounds, some of which have been found to promote cancer development and cause genetic and cellular damage in rats and human cells.

Part of SureBeam's demise is due to the unpopularity of irradiated food. Many grocery stores have discontinued test sales. Radioactive cobalt-60 is the primary concern in many places. Over 300 people attended a rally in Milford Square, Pennsylvania to protest the installation of a Graystar food irradiation facility and the use of irradiated food in federal school lunch programs.

On May 29, 2003, the USDA approved the sale of irradiated beef for the National School Lunch program. The treated meat costs between 13 and 20 cents more per pound.

School districts have the option of choosing or rejecting the offer. California legislators adopted the "California Safe School Lunch Act," a bill that prevents irradiated food from being served to children. On November 11, 2003, the Iowa City School Board passed a policy banning irradiated meat from its school lunches. Iowa City parents — worried about the district's 11,000 students — worked with the board to get the ban passed.



Photo by John LaForge

This box of frozen beef patties was for sale in Luck, Wisc. The meat was irradiated for Huskein Meats by the now bankrupt SureBeam Company.

Help End Irradiation of Ground Beef

On November 24, 2003, the Center for Food Safety and Public Citizen filed a petition with the Food and Drug Administration (FDA) requesting that the agency revoke its 1997 approval of irradiation for ground beef. The consumer groups made the request because of a number of findings:

- * The FDA failed to follow its own protocols when it approved irradiation for ground beef;
- * New research has raised safety concerns about some of the chemicals produced in ground beef when it is irradiated;
- * Testing of irradiated ground beef conducted by the groups showed that these chemicals (which do not occur in non-irradiated meat) were present in irradiated ground beef purchased at grocery stores and one fast food restaurant.

Please submit your comments!

The FDA allows interested parties to comment on the Center for Food Safety/Public Citizen petition. Comments must refer to "Citizen Petition No. 4Z4752 on irradiated ground beef."

There is no deadline on registering your support for the ban. The best way to submit views is via postal mail to:

Division of Dockets Management
Food and Drug Administration
5630 Fishers Lane, Room 1061 (HFA-305)
Rockville, MD 20852



Photo by Bonnie Urfer

Opponents of Wisconsin State Assembly Bill 555 participated in a Feb. 24 rally and "lobby day" at the state capital in Madison. AB 555 would pave the way for nuclear reactor construction by repealing a state law requiring that reactors be competitive with alternatives, and that a nuclear waste storage site be operational.

Wisc. Poised to Stop Nuclear Power Revival

Wisconsin residents have a chance to stop a Republican-sponsored bailout of the nuclear industry. A coalition of safe energy and conservation groups has been formed to defeat Assembly Bill 555.

The coalition includes Clean Wisconsin, Physicians for Social Responsibility, Veterans for Peace, Northern Thunder, Citizens Utility Board, Wisconsin Interfaith Climate and Energy Campaign, Sierra Club, Renew Wisconsin and Nukewatch.

The bill, sponsored by Assembly member Mike Huebsch and 18 other Republicans, would repeal a 20-year-old statute that sets two conditions for new reactor construction in the state: 1) that a nuclear waste storage facility be in operation; and 2) that nuclear power be economically competitive with alternatives.

AB 555 would remove these common sense requirements. The proposal is part of the Bush Administration effort to revive the failed nuclear power experiment nationwide. Three reactors currently operate on the shore of Lake Michigan north of Milwaukee — two at Point Beach and one at Kewaunee.

The state Public Service Commission Chairwoman Burnie Bridge has complained that the bill's 180-day limit on processing applications for reactor construction is about "a fifth of the time that probably would be needed."

Democratic State Representative Spencer Black, an early opponent of the measure, says the two requirements for nuclear power in Wisconsin, "are not arbitrary standards set artificially high. They are rooted in real, unresolved issues. For nuclear boosters to call for their repeal is to admit that nuclear can't yet pass the test of safety and economy."

What You Can Do

Wisconsin residents should urge their state representatives and senators to vote against the bill, which has already been approved by the Assembly Energy and Utilities Committee. Write, call, fax and email your lawmakers and Governor James Doyle to demand they speak out. For detailed information see: www.wisconsinuclearwatchdog.org. Make plans to attend the March 25 rally in Madison. (See the Be Safe ad on page 1.)



'Freedom' for Vanunu

Mordechai Vanunu worked as a technician at Dimona, Israel's nuclear weapon's production facility until he blew the whistle on the secret nuclear weapons program. After being kidnapped by Israeli secret agents and convicted in a secret trial, he was sentenced to 18 years

in prison — 11 years in solitary confinement. His release is set for April 20 or 21.

Vanunu gave photographs and a description of Israel's weapons to London's Sunday Times in 1986. From the evidence presented, experts estimated that Israel, at the time, had the world's sixth largest stockpile. Currently, the CIA estimates the Israel arsenal at between 200 and 400 nuclear weapons.

The Israeli government intends to deny Vanunu a passport in order to prevent him from ever leaving the country, according to a March 11 Israeli radio report. The report noted that Vanunu may be denied access to a telephone and have his movements restricted in a form of house arrest.

Vanunu was nominated for the 2003 Nobel Peace Prize.



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
Barb Katt, Bobby King, John LaForge, Molly Mechtenberg-Berrigan, Michele Naar-Obed, Jeff Peterson, Beth Preheim & Bonnie Urfer

Nukewatch Staff
Bonnie Urfer, John LaForge & Molly Mechtenberg-Berrigan

Volunteers
Jerry Mechtenberg-Berrigan, John Bird, Muriel Fitzgerald, John Heid, Jane Hosking, Barb Katt, Jeff Peterson, Maurice Thaler and Gail Vaughn

Write us. The Pathfinder submission deadlines:
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.wisconsin.gov
Web: nukewatch.com -& no-nukes.org/nukewatch

Address Service Requested

Luck, WI 54853-0649

P.O. Box 649

The Progressive Foundation



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

Which Path to a Safer World?

TOOLS FOR PEACE

11 blankets for refugees	\$100
3-day training for 160 youth in peace building	\$4,000
Enroll 2 children in Head Start	\$14,000
2 home health aides for disabled elderly	\$40,000
Associate degree training for 29 RNs	\$145,600
Rest subsidies for 1,000 families	\$586,000
Annual salary/benefits for 15 RNs	\$763,000
Improve, repair, modernize 20 schools	\$46 million
WIC program nutrition for 200,000 families	\$130 million
Eradicate polio worldwide	\$275 million
Best vaccinations for 10 million children worldwide	\$350 million
Child care for 68,000 needy children	\$413 million
7,000 units of affordable housing	\$494 million
Prevent cuts to education programs (FY 2003)	\$1.1 billion
Minimum support to save Amtrak train service	\$1.2 billion
Annual salary/benefits for 38,000 elementary teachers	2.1 billion
Double federal funding for mass transit	\$12 billion
Health care coverage for 7 million children	\$16 billion
Save 11 million lives worldwide fighting infectious diseases	\$38 billion

TOOLS FOR WAR

11 hand grenades
1 rocket launcher
1 cluster bomb
1 Hellfire missile
1 bunker-buster guided bomb
1,000 M-16 Rifles
1 minute war on Iraq
1 hour war on Iraq
7 unmanned Predator drones
3 tests of missile defense system
6 Trident 11 missiles
Amphibious Warfare Landing Ship Program
1 year military aid to Colombia
1 day of war on Iraq
2 months U.S. war force in Afghanistan
1 Stealth bomber
1 year cost of war in Afghanistan (2001/2002)
1 year nuclear weapons program
1 month U.S. current military spending

Collection *Laka* foundation
The War Resisters League

www.laka.org

Digitized 2018