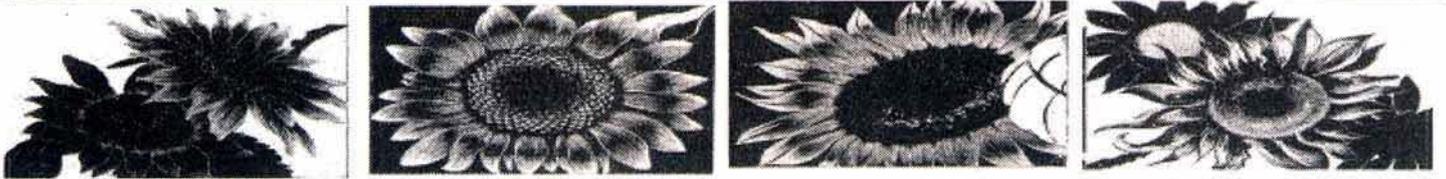


NUKEWATCH

QUARTERLY



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

This is What Disarmament Looks Like

The meadow at right in a photo taken July 1 is where the Navy's Project ELF (extremely low frequency) submarine warfare antenna once stood, near Clam Lake, Wisconsin. Its buildings, fences, equipment, machinery, roads, utility poles and heavy antenna wire are all gone. Nukewatch worked in coalition for nearly 20 years to shut down the first-strike nuclear war system. In 2004 the program was terminated, and the look of the place today — after so many years of rallies, treks, occupations, fund-raisers, blockades, vigils, arrests and jailings — is positively surreal. Only this field of flowers remains. The Michigan facility that operated in tandem is standing but boarded up, and weeds are taking over.

We Need Your Help

We want to continue the work of disarmament and bring an end to nuclear madness but Nukewatch needs financial help today or we may ourselves become a field of flowers.

The Nukewatch *Quarterly* is published every three months. Never in our 30 year history have we been unable to print the newsletter, but without additional contributions, this may be the last issue. Times are hard, but for this small tenacious non-profit organization they are especially challenging. Without your support, we may have to turn off the lights and close the door. Every donation helps keep us going.

For three decades Nukewatch has worked for disarmament and environmental justice: on the roads, in jail, next to and on the missile silos, at Stratcom's missile bases, at nuclear reactors and waste sites, at Cape Canaveral and the Nevada Test Site — decades of steadfast organizing, protest and resistance. Please help support Nukewatch, keep us on the job, help out so we can continue our work.

Today nuclear disarmament is big news. As the page-one article notes the White House could take immediate, easy, unilateral and tension-reducing actions that would demonstrate our government's good faith in pursuing the goal, stated by President Obama in Prague, of the

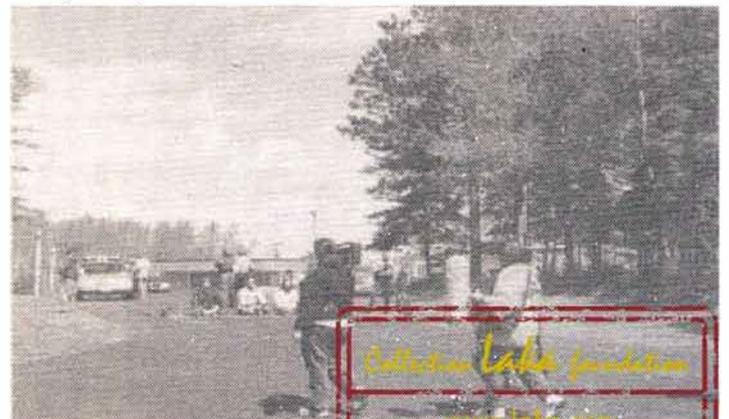


Photo by Bonnie Urfer

elimination of all nuclear weapons. This is no time to ease up on our efforts to rid the world of these self-destructive and indefensible machines.

Please, write, call, email or fax the president and your congressional representatives urging them to ratify the Comprehensive Test Ban Treaty and to support the six actions outlined on page one. Make plans to participate in disarmament groups, campaigns and activities this year and next. And please send a donation to Nukewatch today to help us keep on keepin' on. We're counting on you.

Together we can make disarmament happen. Please use the enclosed envelope or mail directly to Nukewatch, 740A Round Lake Road, Luck, WI 54853. Thanks.



The Wisconsin ELF site entrance site before its disarmament.

Collection Lake Foundation

www.lake.org

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Obama To Retain "Safe, Secure, Effective" Nuclear Overkill Capacity

By John LaForge

The United States and Russia, which together possess 95 percent of the world's nuclear weapons, announced on July 6, an agreement on a plan to someday reduce their arsenals by up to one-third.

The proposed treaty could cut long-range thermonuclear weapons systems for each side — known in jargon as "strategic" weapons — to between 1,500 and 1,675. Mainstream news reports said this was "down from the limit of 2,200 slated to take effect in 2012."

In fact, according to the *Bulletin of the Atomic Scientists* in 2007 the U.S. had 9,938 warheads. It is obligated under the 2002 Moscow Agreement to reduce that number to 5,470 by the end of 2012. The July proposal is intended to replace the 1991 Strategic Arms Reduction Treaty which is due to expire in December 2009.

"The limit on delivery vehicles — land-based ICBMs, submarines and bombers — would be somewhere from 500 to 1,100 down from the 1,600 currently allowed," *The New York Times* reported.

Maintaining a total of 1,500 warheads, at 335 kilotons each (today's Minuteman III missile warheads), is equivalent to 502,500,000 tons of TNT, or 502 "megatons" of nuclear firepower.

There are 188 cities on Earth with over 2 million people. With the arsenal reduced to 1,500, the U.S. could explode seven warheads on each one of them. "That should do it," quipped Nukewatch staffer Bonnie Urfer.

President Obama and Russia's Demetri Medvedev said they want to impose even deeper cuts in their nuclear

arsenals and put the world on a path toward eliminating nuclear weapons altogether. During their July 6 news conference Obama said, "This is an urgent issue, and one in which the U.S. and Russia have to take leadership. ... showing ourselves willing to deal with our own nuclear stockpiles in a more rational way."

Obama's less rational embrace of the nuclear arsenal was presented April 5 in Prague where he said, "As long as these weapons exist, the United States will maintain a safe, secure and effective arsenal to deter any adversary, and guarantee that defense to our allies."

The president's language was reminiscent of the 1980s Reagan Administration.

In a July 29 speech to the Strategic Command which controls the U.S. arsenal, the director of the U.S. Arms Control Association, Daryl Kimball, outlined the Pentagon's current nuclear warfare policy, complaining that it hasn't essentially changed since the U.S.-Soviet Cold War. Kimball reported, "Unfortunately, even after two post-Cold War Nuclear Posture Reviews, the United States still has a nuclear force posture that calls for ... the same basic roles and retains all of the essential characteristics it had during the Cold War."

"Current doctrine," Kimball noted, "calls for:

- "A nuclear arsenal and readiness posture capable of delivering a devastating counterforce attack against Russia, China, and other potential regional nuclear-armed foes.
- "The possible use of nuclear weapons to defend U.S. forces and allies against massive conventional military attacks; and
- "The possible use of nuclear weapons to counter suspected chemical or biological weapons threats."

Depleted Uranium Weapons Under Siege

German Armed Forces Contradict U.S. Denials Over DU in Afghanistan

A classified German Army manual flatly contradicts U.S. and UK claims that no depleted uranium (DU) has been used in Afghanistan.

A military manual that was handed over to German campaigners has reignited allegations that the U.S. used DU ammunition in Afghanistan. The manual, a war-fighting guide for Germany's Bundeswehr (Armed Forces) contingents in Afghanistan is marked "classified" and for official NATO use only. It was published in late 2005.

The section on DU munitions begins with:

"During the operation 'Enduring Freedom' in support of the Northern Alliance against the Taliban-Regime, U.S.-aircraft used, amongst others, armor-piercing incendiary munitions with a DU-core. Because of its pyrophoric character, when this type of munition is used against hard targets (e.g. tanks, cars) the uranium burns. During the combustion, toxic dusts can be deposited, particularly at and around the targets, which can then be resuspended easily."

It then warns troops how to recognize contaminated targets and of the potential health threat from DU munitions, suggesting precautions that troops should take. It is notable that they suggest the use of full Nuclear Chemical and Biological warfare suits:

"DU-munitions can therefore induce toxic and radiological damage to exposed personnel through heavy metal poisoning and very low-level radiation. When it is suspected that these weapons have been used (burnt out cars or tanks, burnt out convoys, typical 30 mm bullet holes) NBC (nuclear, biological and chemical) protection suits and NBC masks have to be worn in the vicinity of the munitions' impact, until NBC security troops can rule out any threat."

— www.bandedpleteduranium.org/en/a/283.html

Pentagon Think Tank Urges Accelerated Search For DU Replacement

A military think tank has urged Army planners to speed up the search for alternative metals due to the growing international opposition to DU weapons.

The U.S. Army Environmental Policy Institute (AEPI) assists the Army Department in developing mitigation policies and strategies to improve or resolve environmental issues that may have significant impact on the Army.

In its May 2008 report, the AEPI suggests that, "the military should continue pursuing R&D for substitutes and be prepared for increased political pressure for current and past battlefield cleanup."

The opinion seems to have been triggered by the growing international campaign against the use of uranium weapons. In particular the report acknowledged the impact that repeated European Parliament resolutions have had on the international debate.

Last year, a July/August AEPI report quoted the U.S. Institute of Medicine, whose two studies of the health impact of DU and the health assessment of veterans concluded that, "...health impacts of depleted uranium exposure in military and veteran populations are difficult to determine with the available data and procedures and an assessment plan would not be easy to design."

AEPI fully accepted the Institute of Medicine's recommendations for, "... a prospective cohort study if future military operations involve exposure to depleted uranium and better integration and linkages of DOD [Dept. of Defense] databases for identifying health issues of current active-duty military personnel and veterans with potential DU exposure."

In acknowledging the flaws in the Pentagon's framework for surveillance of sick veterans and the dearth of reliable research into historical DU exposure, the AEPI made this stark recommendation to the U.S. Army:

"Since the DU controversy continues, with pressure for creation of international regulations to ban DU munitions, the military should continue to seek alternative high-density projectile materials and glean force health protection recommendations from such studies."

— International Coalition to Ban Uranium Weapons, July 10, 2009, www.aepi.army.mil/rpt-weei.html

Uranium Travels Nerves From Nose to Brain

The journal *Toxicology Letters* reports in its July 31 online edition that troops and uranium workers who inhale radioactive uranium may see it bypass the brain's protective barrier and follow nerves from the nose directly to the brain.

In a study conducted on rats, nerves, acting as a conduit, carried inhaled uranium from the nose directly to the brain. Once in the brain, the uranium may affect task and decision-related types of thinking. In his synopsis of the new study, Doctor of Veterinary Medicine Paul Eubig noted that "This study provides yet another example of how some substances can use the olfactory system — bypassing the brain's protective blood barrier — to go directly to the brain. Titanium nanoparticles and the metals manganese, nickel and thallium have been shown to reach the brain using the same route."

"Once in the brain, the uranium may affect task and decision-related types of thinking. [One] study of Gulf War veterans who have uranium shrapnel in their bodies showed that they perform more poorly on general brain cognitive tests of performance efficiency and accuracy," Eubig wrote.

Belgian Parliament Votes Unanimously to Ban Depleted Uranium Weapon Investments

On July 2, the Belgian Parliament unanimously approved a law forbidding the financing of the manufacture, use and possession of DU weapons. Belgium is now the first country to prevent the flow of money to DU producers. The law complements the country's ban on DU's manufacture, testing, use, sale and stockpiling which came into force on June 21.

Vieques Aghast at Navy Exploding, Burning of Live DU and Other Munitions

The Navy has begun destroying live unexploded munitions — including depleted uranium — that litter the former test firing ranges on the island of Vieques. Nearby residents are flabbergasted to see this being done by detonation. About a third of the 18,700 munitions that Navy workers have found so far have been blasted in the open air.

To add insult to injury, the Navy proposes to burn up to 100 acres of dense jungle to locate and blow up unexploded cluster bombs. What has residents in an uproar is the threat to their health. "The great majority of emergency room visits here last year were for respiratory problems. Can they guarantee that contaminants or smoke won't reach the population?" asked Evelyn Delorme Camacho, the mayor of Vieques.

Among the toxic chemicals that may be inside the shells are TNT, napalm, depleted uranium, mercury, lead and PCBs. According to the Navy, between the mid-'60s and 2003 the Pentagon fired 300,000 munitions into the Live Impact Area in Vieques during training operations.

Islanders suspect the tested weapons toxicants have caused "what Puerto Rico's health department found were disproportionately high rates of illnesses like cancer, hypertension and liver disease on the island." — *New York Times*, Aug. 7, 2009, & Naval Facilities Engineering Command.

This archaic posture, once known as nuclear madness, was described as long ago as 1985 in the *Washington Quarterly* which reported that, "The climatic consequence of such a conflict would appear to afford no sanctuary.... A superpower could not isolate itself from the effects of its own weapons."

What the U.S. Could Do Now

The use of nuclear weapons is legally prohibited because their effects are indiscriminate and uncontrollable, because radiation is a poison which is explicitly forbidden under all circumstances by the Hague Regulations and because their radiation-induced mutagenic and multigenerational effects long outlast the end of hostilities in violation of the Geneva Conventions.

Even Cold War architect and former Reagan administration national security advisor, Paul Nitze, writing Oct. 28, 1999 in the *New York Times*, said: "I see no compelling reason why we should not unilaterally get rid of our nuclear weapons. To maintain them ... adds nothing to our security. I can think of no circumstances under which it would be wise for the United States to use nuclear weapons, even in retaliation for their prior use against us ..."

If the U.S. government were genuinely interested in pursuing general nuclear disarmament, as it pledged to do in ratifying the Nuclear Nonproliferation Treaty, it could immediately undertake six independent actions that would illustrate its good faith:

1. Take all nuclear weapons off hair-trigger "alert" status, ending the Pentagon's threatening, accident-prone policy of "launch on warning";
2. Declare a nuclear "no first use" policy similar to that of China;
3. Announce a blanket refusal to attack non-nuclear states using nuclear weapons;
4. Withdraw all U.S. nuclear weapons from Europe;
5. Separate nuclear warheads from delivery vehicles which will increase the time needed to prepare any use of the weapons;
6. Halt the production of fissile materials nationwide.

- JL

U.S. Nuclear Arsenal

By Robert Norris and Hans Kristensen, "Nuclear Notebook," *Bulletin of the Atomic Scientists*

We believe the number of warheads will decline from approximately 9,938 today to about 5,470 by the end of 2012.

Current plans call for retaining about 2,000 W76 warheads,¹ modifying them, extending their service lives, and improving their military capabilities. It took almost 10 years, 1978-1987, to produce 3,250 W76 warheads for the Trident submarine missile system.

[We] estimate that U.S. "operationally deployed" strategic forces under the 2002 Moscow Treaty will number 2,192 warheads by the end of 2012, and that another 3,275 warheads will not be counted under the treaty.

* Land-based ICBMs: 500 warheads:

There are 450 Minuteman III ICBMs with 150 W87² warheads deployed at Warren Air Force Base (AFB) in Cheyenne, Wyoming and 150 more at Malmstrom AFB, in Great Falls, Montana. Another 200 W78³ warheads are on Minuteman IIIs at Minot AFB in North Dakota.

* Submarines: 1,152 warheads:

There are 646 W76-1s, and 506 W88 warheads (475 kilotons⁴ each), which are on missiles on 12 nuclear-powered ballistic missile [Trident] submarines (2 in overhaul not counted).

* Heavy bombers: 540 warheads:

There are 32 B-52 bombers⁵ and 16 B-2 Combat Coded bombers at AFBs at Barksdale, Louisiana, Minot, North Dakota and Whiteman, Missouri. — *Footnotes on page 6.*



In September, German farm residents opposed to using salt caverns under Gorleben as a permanent nuclear waste dump made a week-long tractor trek to Berlin to press their case. They were joined by thousands of people from around the country for the Sept. 5 protest. Wide-spread public opposition and proof of high-level scientific fraud in the siting process moved Environment Minister Sigmar Gabriel to call consideration of the site "dead." In nation-wide polls, 59 percent oppose nuclear power and want to retain federal legislation that will phase out Germany's 17 reactors by 2025.

Peace Walk Ends With Nonviolent Action

FORT McCoy, Wisconsin — Nine anti-war activists were arrested August 9 at Ft. McCoy after walking onto the central-Wisconsin National Guard and Reserve Army Base to protest U.S. wars in Iraq and Afghanistan and the continued U.S. possession of nuclear and uranium weapons.

Four of the nine were taken into federal custody but were released the next day without conditions from Madison's Dane County jail pending arraignment in federal court on trespass charges. The four had earlier been officially barred from the base for previous protests.

The five others were detained, ticketed and released with an unspecified arraignment date.

All nine were part of a three-day walk for peace that began August 7 at the gate of Camp Williams, Wisconsin. About 50 people from Illinois, Minnesota, Iowa, Texas, Wisconsin and New York participated in the walk.

Walkers demanded the immediate return of U.S. forces from Iraq and Afghanistan. The event was also a commemoration of the U.S. atomic attacks on the cities of Hiroshima August 6, and Nagasaki August 9, 1945, and an

appeal for a moratorium on the use of armor-piercing shells made from the radioactive waste known as "depleted uranium" munitions.

Walkers carried dozens of placards along Wisconsin highways 12 and 21, principle among them were calls to: bring all the troops home; compensate the victims of the U.S. military occupations; abolish nuclear weapons; and inform the National Guard troops of all their legal rights.

The four activists released from federal custody were Brian Terrell, 53, of Maloy, Iowa; Alice Gerard, 52, of Grand Island, New York; Joy First, 55, of Madison and Bonnie Urfer, 57, of Luck, Wisconsin.

The five who were ticketed and released pending arraignment are Gerald Paoli, 49, of Chicago, Illinois, Dylan Parker, 20, of Davenport, Iowa, Vicki Andrews, 64, of Grand Rapids, Minnesota, Janet Parker 41, of Madison and Tom Haebig, 72, of West Bend, Wisconsin.

Organizing organizations include Nukewatch, Wisconsin Network for Peace and Justice, Madison Pledge of Resistance and Voices for Creative Nonviolence.



Photo by Bonnie Urfer

About 50 activists joined a 3-day peace walk in August calling for nuclear disarmament and an end to war.

Activists Mull Law Suit Over False Arrest

"A Virtual Kidnapping" Says Attorney

By Brian Terrell

Four peace activists who were jailed in Madison by Department of the Army Police from Ft. McCoy after a peaceful protest August 9 are exploring possible legal responses to what they say was their false arrest.

The line-crossing action at the sprawling Fort McCoy National Guard and Army Reserve Base occurred on the anniversary of the U.S. atomic bombing of Nagasaki. The action concluded a 3-day, 30-mile "Walk for Peace" that ended at the fort's main gate.

Ft. McCoy is a training center from which Guard and Reserve units from around the country join the U.S. occupations of Iraq and Afghanistan. The Walk for Peace was sponsored by Nukewatch, Chicago-based Voices for Creative Nonviolence, Madison Pledge of Resistance and the Wisconsin Network for Peace and Justice.

Of the nine activists who were initially detained, five were ticketed and released, but Nukewatch staffer Bonnie Urfer, Alice Gerard of Grand Island, New York, myself, and Joy First of Madison, were taken without proper authority to Dane County jail in Madison.

Assistant U.S. Attorney John Vaudreuil, in an interview with Wisconsin Public Radio, said that it was "a glitch in communications between his office and military police at the base" that led to the jailing of the four. "The Justice Department's routine procedures for these annual protests are to ticket trespassers and release them for trial at a later date," Vaudreuil said.

The four were held on the base for three hours and then shackled and loaded in a van by Ft. McCoy police and driven to Madison. Incarcerated as "federal holds," the U.S. Marshals' office in Madison said August 10, that it had no knowledge of the four and had no record of their detention.

Then, without appearing in court and with word only from jail guards that "Ft. McCoy wired that they were lifting their hold," the four of us were released at 1:00 p.m., 24 hours after being apprehended.

The four of us and several attorneys note that federal law and Army regulations limit the apprehension authority of Department of the Army Police over civilians "to issuing citations and turning the subject over to the appropriate civilian authorities." Army police "are considered part of the Department of the Army and, therefore, are subject to the restrictions on aid to civilian law enforcement imposed by the Posse Comitatus Act," one attorney said, suggesting that the Ft. McCoy officers had no legal right to jail or transport us.

According to National Lawyers Guild attorney Larry Hildes of Bellingham, Washington, "When the Ft. McCoy

police issued citations to the protestors, they were legally free to go. They [the Army] had no authority to detain them any longer, much less drive civilians 70 miles from the base and put them in jail." The unorthodox arrests constitute a "virtual kidnapping," said Hildes who is representing other activists around the country in a number of alleged violations of the Posse Comitatus Act. Not only did military authorities presumably act unlawfully but the Dane County Sheriff's Department "should have been asking a lot of questions" before accepting the prisoners delivered by Army police, Hildes said.

"As a way to try to punish us and deter our protests against the wars and occupations in Iraq and Afghanistan, the officials at Ft. McCoy acted as judge and jury as they illegally detained us and took us to Madison to be held overnight," said Joy First, co-convenor of the National Campaign for Nonviolent Resistance. Bonnie Urfer sees parallels between Ft. McCoy police treatment of the protestors and military policy regarding detainees abroad. "The four of us received just a small taste of what it feels like to be rounded up and punished by a military out of control and operating outside the law," says Urfer. "Those in Guantanamo have known that injustice for 7 long years compared with our 24 hours. In the U.S., illegal military detention should not be happening ...," she said.

If the U.S. Attorney pursues trespass charges at trial, the defendants are also exploring the basis for dismissal motions based on government misconduct.

"What the U.S. Attorney calls a 'glitch in communications' is in reality a crime and part of a larger pattern of illegal government activity that needs to be resisted on many levels," said Jeff Leys of Voices for Creative Nonviolence. "Wars of aggression and illegal occupations not only take the lives of civilians and soldiers without distinction, they also inevitably erode civil liberties and freedoms here at home," Leys said.

— Brian Terrell was the coordinator of the Catholic Peace Fellowship and is a long-time member of the Strangers and Guest Catholic Worker in Malloy Iowa.



Photo by John LaForge

Brian Terrell at the Fort McCoy gate near Tomah, Wisconsin.

Uranium Legacy Remembrance and Action

CHURCH ROCK, NM — A coalition of Arizona's and New Mexico's Navajo and Diné people signed a proclamation declaring July 16 Uranium Legacy Remembrance and Action Day. The signing took place at the conclusion of a 5-mile walk commemorating the disastrous 1979 uranium tailings dam accident that spilled 1,100 tons of the radioactive waste and 94 million gallons of toxic waste water. United Nuclear Corporation was responsible for the spill which caused massive long-term contamination of the Puerco River and is considered the worst radiation release by volume in history. Only the 1986 explosion and burning of Chernobyl tops the New Mexico disaster in the amount of radiation released.

The Multicultural Alliance for a Safe Environment (MASE), a coalition of community groups, organized the 30th anniversary commemoration of the spill along with a public affirmation of the Nations' ban on uranium mining recently adopted and set forth in the Diné Natural Resources Protection Act of 2005.

A formal cleanup plan for the Northeast Church Rock Mine area was issued in June. Clean up efforts lag as 30 years later families still live in a radioactive environment. Some families will be leaving their homes on Red Water Pond Road as work is done to remove radioactive tailings from their community. MASE, a coalition of Navajo, Diné, Laguna and Acoma communities and other nonprofits and community groups from

New Mexico and Arizona, demand that health studies be conducted, that abandoned mines be sealed, that environmental justice be done through remediation of the land and water poisoned by uranium mining for the nuclear power and weapons industry.

— Gallup Independent, July 17; Navajo Times, July 23, 2009



Photo by Leigh T. Jimmie

Peterson Bell, 44, lives on Red Water Pond Road near the United Nuclear Corporation uranium mine.

Uranium Mining — a World of Destruction

WINDOW ROCK, New Mexico — The nuclear industry's callousness is made clear by its contamination of Native Americans of the South West. Uranium mining and milling companies left mountains of radioactive waste that still poison the Navajo and Diné Nations.

The Diné's land contains more than 1,000 abandoned uranium mines. Between the 1940s and '80s, millions of tons of uranium ore were mined for nuclear power and weapons in an area covering parts of Arizona, Utah, and New Mexico.

Some 250 million tons of these tailings have been left mostly on Native lands, and some was used in houses, stoves, chimneys, driveways, walkways, chink in log buildings and as fill dirt. The U.S. plans to spend \$3 million a year to demolish contaminated homes and other buildings constructed by residents and mining companies from materials made with radioactive mill tailings.

The U.S. has assessed around 117 structures on the 27,000 square-mile reservation. Close to 27 structures have been demolished and 13 rebuilt. The Environmental Protection Agency and the Navajo EPA have been focusing on homes and structures located between a half-mile to a mile from significant mines or giant waste mounds. The U.S. EPA has budgeted \$250,000 to demolish each home or structure containing uranium, landfill the rubble and rebuild. The analysis of an additional 500 buildings is expected to take up to five years. The Diné are at risk of being re-contaminated because of erosion of "caps" placed on uranium tailings mounds at abandoned mine sites. Contaminated buildings and homes have also been reported in Colorado. — Associated Press & San Francisco Chronicle, June 21, 2009; U.S. EPA, epa.gov/rpdweb00/docs/tenorm/402-r-08-005-volii/402-r-08-005-v2-ch4.pdf

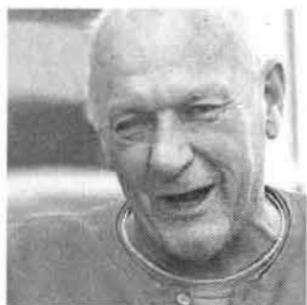


Photo by Bonnie Urfer

Fr. Carl Kabat in an undated photo taken at the Nukewatch office.

The Catholic priest of 50 years chose the 6th anniversary of the U.S. atomic bombing of Hiroshima for the action, pointing out that the launch site holds a nuclear warhead 25 times the power of the Hiroshima bomb.

"I thought, 'What a beautiful place this is except for this damnable thing in the ground that could kill two or three million people,'" Kabat said in a Sept. 6 *New York Times* interview at the Weld County jail, in Greeley, Colorado. "It's insane." He is being held on state charges of misdemeanor criminal mischief and trespassing.

Priest Acts Against "Insane" Weapons

On August 6, 2009, Fr. Carl Kabat entered the N-8 missile silo in northeast Colorado, where one of the Pentagon's 500 Minuteman III nuclear-armed ICBMs is on hair-trigger alert, and used a household hammer to begin its disarmament.

The Catholic priest of 50 years chose the 6th anniversary of the U.S. atomic bombing of Hiroshima for the action, pointing out that the launch site holds a nuclear warhead 25 times the power of the Hiroshima bomb.

It took Air Force security 45 minutes to reach Kabat at the remote, unguarded missile silo even though his plans were broadcast three days in advance by an article in the *St. Louis Post Dispatch*. There are 199 others just like N-8 in the giant missile field which is operated by the F.E. Warren Air Force Base near Cheyenne, Wyoming.

When it comes to nuclear weapons, Kabat has taken literally the biblical prophecy to "turn swords into plowshares and spears into pruning hooks." Two of his previous actions — the 1980 Plowshares Eight and the 1984 Silo Pruning Hooks — were named after the passage. He dubbed his latest action "Nuclear Weapons Here Pruning Hooks."

Kabat, who will turn 76 in October, has spent over 14 years in jail and prison for actions taken against nuclear weapons since 1978. A member of the Oblates of Mary Immaculate order of Catholic priests, he worked as a missionary in the Philippines and Brazil before devoting himself to the cause of nuclear disarmament.

Speaking to the court during a 2006 sentencing proceeding in a different case, Kabat said, "I believe that you know the Minuteman III is insane, immoral and illegal, but your actions protected that insanity, that immorality and that illegality."

NUCLEAR SHORTS

Truck Crashes With 16 Tons of Uranium Hexafluoride

SANDSTONE, West Virginia — A tractor-trailer truck carrying 16-tons of uranium hexafluoride (UF6) rolled over on Interstate-64 after a crash with an SUV in Summers County, West Virginia, on August 2. The accident resulted in the evacuation of 100 people for several early morning hours. The cab of the truck caught fire and haz-mat teams responded. I-64 was closed from midnight to 7:00 p.m. the following day to replace a downed power line, inspect the waste canister and wait for a special crane to right the semi and move the UF6 from the destroyed truck to another semi. The shipment originated with Honeywell International in Metropolis, Illinois and was being shipped to Portsmouth, Virginia. From there the material was to go to the Netherlands.

The canister separated from the truck's trailer without a release of radiation. Honeywell sent a 4-person crew to inspect the cylinder and noted minor damage to a lifting lug.

When UF6 comes in contact with water or water vapor, it forms hydrogen fluoride (HF), an extremely corrosive gas that can fatally damage the lungs if inhaled at high concentrations and can destroy the kidneys.

— NBC, Channel 7, Huntington, WV; the Beckley, WV Register-Herald and AP, Aug. 2; NRC, Aug. 3, 2009

Wanted: Quagmire Enforcers

WASHINGTON, DC — Having found itself short of leaders, the Army for the first time in its history has begun a campaign to recruit officers. A set of new Pentagon commercials designed to appeal to college graduates will air regularly on such shows as "CSI: Miami," "Law and Order" and sports programs.

The Army ads have engaged former officers who have become high-level corporate executives — including 7-Eleven CEO Joseph DePinto and Univision Vice President Otto Padron — to "tell their story." The Pentagon has brought Major League baseball onboard with a program for MLB.com named "Leaders of the Diamond" which features all-stars talking about dedication. The recruiting campaign is also hosting panel discussions at compliant universities this fall where students can speak directly with officers.

Speaking to the press, Gen. Benjamin Freakley, the head of recruiting, said, "If you think about it as brand or product management, we have this product [officers] within our brand that gets no notoriety."

In 2008, the Army's ranks stood at 544,000. It plans to add 22,000 troops in the coming year. Massive unemployment and historically low wages have swelled the lower ranks in spite of two ongoing shooting wars. Loren Thompson, a defense analyst with the Lexington Institute, said "The economic downturn has made it really easy for the Army to recruit in recent years..." referring to non-officers.

Nuclear Waste Booby Trap Replaced

OAK RIDGE, Tennessee — Part of the Y-12 nuclear weapons complex here was using 112 metal cargo containers full of radioactive waste as a "security barrier" until July of this year. The shipping containers holding so-called "legacy" wastes from nuclear weapons production have been replaced with concrete and razor wire. Identification and characterization of the containers' radioactive contents had never been done before using them as shields. It seems that potential truck bombers, if their explosives had worked and smashed barrier, were to be provided their own radioactive booby trap courtesy of the U.S. government. Funding has become available to identify the contents about 50 of the waste containers for off-site shipment and disposal. The rest will be put in storage in lieu of additional funding.

— Knoxville News Sentinel, July 28; Y-12 Times, July 2009

Los Alamos Run-Off Spreading Contamination

LOS ALAMOS, New Mexico — The aging Los Alamos National Laboratory (LANL), which tests nuclear weapons materials, is going to pieces. For the second time in a year, plastic connectors cracked and caused the spill of hundreds of gallons of radioactive waste. LANL's Radioactive Liquid Waste Treatment Facility came online in 1963 and the complex, connected by a network of piping to 63 buildings, treats weapons related contaminants.

In a report to Congress earlier this year, the National Nuclear Security Administration said portions of the LANL waste treatment systems "are over 40 years old and their reliability is significantly diminishing." According to Los Alamos spokesman Kevin Roark, the facility, "does not comply with current codes and standards," including modern seismic, building and electrical codes. Still, Congressional committees are planning to cut clean-up and upgrade funds for nuclear weapons sites.

The New Mexico Environment Department reported in January of this year that plutonium, americium and strontium were detected in storm water run off outside LANL property. The department said that contaminants from a Solid Waste Management Unit were washed "into Los Alamos Canyon and beyond laboratory boundaries" last summer, when a 4-million gallon spill of drinking water eroded soils over a 26-hour period. The water from LANL eventually puts the Rio Grande at risk, and in a July 2008 analysis the environment department detected americium in the river water.

— Albuquerque Journal, July 10; "Department Confirms Radio-chemical in Storm Water," New Mexico Environment Department report, Jan. 29, 2009

Imported Fuel Pellets Too Hot to Burn

ROME, Italy — Ten thousand tons of radioactive wood fuel pellets have been seized by police across Italy. The pellets, imported from Lithuania, are contaminated with cesium-137. Burning the pellets produces easily-inhaled cancer-causing radioactive ash and smoke. Cesium, which is highly radioactive for 300 years, is an extremely toxic form of nuclear waste created in large amounts by nuclear power reactors. It was also dispersed widely by the 1986 Chernobyl explosions and fire. Eleven regions of Italy received shipments of the hot pellets.

— Agency France Press, June 14; Associated Press & Sydney Morning Herald, June 15, 2009

Waste Reprocessing Startup Delayed for 17th Time

ROKKAHO, Japan — The full startup of the waste reactor fuel reprocessing complex here will be postponed until December 2010 or even later due to technical problems.

Large-scale reprocessing of waste fuel — a chemical process done with remote control because of intense radiation — produces millions of gallons of high-level radioactive waste and has contaminated large areas of Russia and the United States. It was ended in the U.S. in 1978. Japan Nuclear Fuel, Ltd. has decided to postpone completion of its facility's final commissioning test, which was scheduled for August, by at least 14 months.

It is the 17th time the finishing test run's has been delayed. Utilities operating large radioactive waste generators had urged an early start for the reprocessing because the storage facility for waste reactor fuel is nearly full.

— [Tokyo] Asahi Shimbun, Aug. 31, 2009.

With Friends Like These

COLORADO SPRINGS —

Imagine a congressional election campaign in which an endorsement from a "Nuclear Missile Launch Officer" would improve your chances. In Colorado's 5th district last year, a con artist using the alias "Rick Duncan" posed as a Minute-man ICBM launch officer in campaign commercials for Lt. Col. Hal Bidlack (USAF, Ret.), who was running as an anti-war Democrat. Bidlack lost to incumbent Doug Lamborn, a Republican, but evidently believed that the "unafraid of nuclear war" angle would toughen his image among Democratic hawks.

In June, "Duncan" was revealed to be Richard G. Strandlof, a mentally unstable schemer who had falsely posed around the country as a military veteran, a graduate of Stanford Univ. and an employee of Senator Mark Udall.

— New York Times, June 8; CNN.com/crime, June 12, 2009

VA Shuttters Clinic After Botched Radiation Treatments

PHILADELPHIA, Pennsylvania — Almost 100 patients of Dr. Gary Kao received inappropriate or misplaced radioactive "seed" implants for prostate cancer treatment at the Philadelphia Veterans Administration hospital. Kao botched 92 of 116 procedures called "brachytherapy" over a six-year period. Fifty-seven patients received inadequate doses while 37 others got excessive doses. Seeds, often containing iodine-125 or palladium-103, were also misplaced in patients' bodies. The doctor altered paperwork to match his errors without objection from the Nuclear Regulatory Commission. He blamed the problem on a computer networking problem that prevented dose analysis. Dozens of hospital staff, including physicists, technologists and urologists were involved in the errors. The NRC says the hospital lacked a "safety culture." As a result, the prostate unit at the hospital has been closed since June 2008. — Philadelphia Inquirer, July 19; UPI, June 22; New York Times, June 20, 2009

French Nuclear Construction Giant Going Bust?

PARIS — After a 79 percent loss in profits in the first half of 2009, France's state-owned nuclear engineering giant Areva is planning to sell a 15 percent chunk of its holdings. The government has also requested a \$3-billion (\$4.3 billion U.S.) bail-out of the company to fend off its bankruptcy. Areva is the world's largest builder of nuclear reactors, yet it has been forced to delay construction of several around the world. Its reactor project in Finland faces a \$5.4 billion bill that includes a \$2.4 billion penalty for delays. South Africa has cancelled a 12-reactor program with Areva, potential reactor contracts elsewhere in Africa, the Middle-East and Eastern Europe have also dried up, undone by the astronomical costs of reactor construction, operation, upkeep and waste management. — AP, The Business Insider, Agence France Presse, Aug. 31, 2009

Radioactive Wasp Nests Sting Hanford Site

HANFORD, Washington — The contaminated soil at the Department of Energy's Hanford site in eastern Washing-

ton is so radioactive that mud dauber wasps have been found to be building nests highly contaminated with cesium- and cobalt-tainted mud. The mud used by the wasps came from a basin that held used reactor fuel. Workers are being employed to dig up six to 12 inches of top soil over a heavily congested six-acre area. Mud dauber wasps have built 50-60 nests covering 75 acres at Hanford that must be searched out using hand-held equipment. The problem started in 2003 when workers planted ground cover, laid straw then watered the area to prevent radiation from becoming airborne with the wind. The mud attracted the wasps that in turn built nests now considered dangerously radioactive. The collected wasps nests will be moved and dumped as low-level waste in a lined landfill on-site. — Tri-City Herald & AP, June 11; New Scientist, June 12, 2009

Modern Hazards From Russia's Cold War Waste

MOSCOW — Russia's United National Development Program has organized a forum to develop a coordinated response to the more than 800 million tons of radioactive and toxic waste — left over from the former Soviet Union's nuclear complex — scattered throughout Central Asia. In Muslimovo in Russia's Chelyabinsk Oblast 690 families have been relocated and officials hope to move the remaining 150 by the end of the year. The village and the surrounding region was heavily contaminated in 1957 by the notorious waste explosion at the nearby Mayak nuclear reactor. In nearby Kyrgyzstan, residents of Mailuu Suu are exposed daily to radiation from the string of radioactive waste dumps that were built around the town. The former Soviet Republic was the site of widespread Cold War-era uranium mining. Official government histories note with pride that the former USSR's first nuclear bomb, "Joe-1," was made from Mailuu Suu uranium. The bomb system's wastes have forced a third of Mailuu Suu's residents to move away while the rest live

in fear of a natural disaster in the earthquake prone region that may further expose the waste.

The quandary of what to do with nuclear waste is nothing new to Russia, and its 40 year dilemma with military submarine reactor waste is indicative. Such is the case of 294 used fuel assemblies from Russia's abandoned submarine refueling base in Gremikha. The waste has been stored in the open air for 40 years, posing a grave radiation threat. In a

haphazard effort to clean-up the site, the barrels were shipped in June to Atomflot in Murmansk where they will be reloaded into casks and transported by rail to Russia's central storage facility at Mayak in the Chelyabinsk region.

The 35-year old ship *Serebryanka* hauled the waste fuel. The Norwegian government news service Barents Observer reported in June, "*Serebryanka* was during the '70s and '80s used ... to store liquid radioactive waste from the Soviet Union's fleet of nuclear powered icebreakers. When the tanks were filled to capacity with liquid radioactive waste, *Serebryanka* simply left Murmansk and sailed to the north-eastern part of the Barents Sea where the tanks were emptied in the sea." — Blacksmith Institute, June 11; Atomic Energy-RU, June 19; The Washington Times, Aug. 13; Radio Free Europe, July 12; The BarentsObserver.com, June 19, 2009

France's Rad Waste Volume to Double in 20 Years

PARIS — France's National Radioactive Waste Management Agency, Andra, has acknowledged that the volume of its highly radioactive waste reactor fuel is expected to double the volume amassed up to 2007 by the year 2030. France, like Germany, the U.S., Britain and Russia, has no permanent dump site for its waste. The waste is currently stored at the contaminated reprocessing site at La Hague. Under current law, it must be buried permanently by 2025 and is in the process of seeking a site for all of its waste. Currently the Aube District in north-central France is being targeted for the dump. — Reuters, June 30; Scotsman, July 1; Andra Press Release, June 24, 2009

Resources

- * **AlliantACTION!** Email: alliantaction@circlevision.org; Web: www.alliantaction.org/home.html
- * **Bulleting of the Atomic Scientists**, 77 W. Washington St. Suite 2120, Chicago, IL 60602; Phone: (312) 364-9710; Web: thebulletin.org
- * **Madison Pledge of Resistance**, Joy First, (608) 222-7581 or jsfirst@tds.net
- * **Wisconsin Network for Peace & Justice**, 122 State St. #402, Madison, WI 53703, Phone: (608) 250-9240, Web: wnpj.org; Email: info@wnpj.org
- * **Voices for Creative Nonviolence**, 1249 W. Argyle St. #2, Chicago, IL 60640; Phone: (773) 878-3815; Email: info@vcnv.org
- * **IEER**, 6935 Laurel Ave. Suite 201, Takoma Park, MD 20912; Phone: (301) 270-5500; Email: info@ieer.org; Web: ieer.org
- * **Maryland PIRG**, 3121 St. Paul St. Suite 26, Baltimore, MD 21218; Phone: (410) 467-9389; Web: Marylandpirg.org
- * **Multicultural Alliance for a Safe Environment**, P.O. Box 4254, Albuquerque, NM 87196; Phone: (505) 262-1862

DU Activists Busted for Nothing, Again

On August 4, AlliantACTION! activists Tom Bottolene, 59, Char Madigan, CSJ, 72, Pepperwolf, 52, and John Schmit, 67, were arrested and charged with "disorderly conduct" after attempting to exercise their legal right to attend Alliant Techsystem's annual meeting of shareholders at company headquarters. All four purchased stock for the purpose.

After being told they weren't allowed inside — even though the four hold legitimate proxies and had tickets for the event — Bottolene lifted an airport strap-like "barrier" that was set up in the parking lot and started walking towards the building. Several Alliant security personnel attempted to stop Bottolene, and while he was trying to walk around them an Eden Prairie police officer put him under arrest. Tom explained that he had a legal right to attend the meeting. The officer asked ATK security, "Do you want him arrested for disorderly conduct?" "Yes," was the answer.

The three others released the nylon strap barrier to get closer to the building and were also arrested.

The technically unlawful arrests follow last year's annual meeting incident in which similarly arrested shareholders had their charges dropped and were given a promise from the City of Eden Prairie that no legal ticket holders would be arrested at the company gathering.

AlliantACTION! Vigil and Civil Resistance

Now in its 13th consecutive year, the AlliantACTION! vigil and civil resistance campaign dramatically focuses public attention on ATK's war profiteering — it makes everything from bullets to rocket motors. The vigil began in 1996 after ATK was named the largest U.S. producer of anti-personnel landmines by Human Rights Watch. The vigil was originally an offshoot of Honeywell Action, which began during the U.S. war in Vietnam. Honeywell spun off its weapons systems to Alliant.

Questions, Rather Than Barrels, Raised by Lake Superior Investigators

By John LaForge

Engineers with EMR, Inc. of Duluth, hired by the Red Cliff Band of Lake Superior Chippewa to investigate the Army's waste dumps along the North Shore, have revealed some of their research findings.

During presentations I attended at Red Cliff and in Duluth, EMR disclosed its 2008 underwater survey results. The Q & A sessions that followed left several serious issues unresolved.

EMR representatives said they took sonar and Remotely Operated Vehicle (ROV) surveys of 95 square miles in the area where some 1,457 barrels of waste were dumped by the



Photo by Cheré Suzette Bergeron

About 100 people marched July 19 through the Canal Park district of Duluth, Minnesota and dozens more rallied near the Lake Walk for a Lake Superior Day event focused on the 1,457 barrels of military waste that the Army dumped along the North Shore 50 years ago. All but nine drums are still there, and calls for sediment testing are increasing as a new study seems to indicate that some of the drums have been buried or degraded into what researchers call a "debris field."

Army Corps of Engineers. Army records, tug boat logs and documentation by the Minnesota Pollution Control Agency (MPCA) indicate that between 7 and 16 dump sites were created by the secret, nighttime dumping that occurred on at least seven occasions between 1957 and 1962.

The wastes, from Honeywell's Twin Cities Army Ammunition Plant, were trucked to Duluth, loaded on Corps' barges, towed up the North Shore and rolled off into the water.

EMR presenters and brochures mistakenly note that the dumping began in 1959. An Army Environmental Hygiene Agency report says the year was 1957, beginning with the disposal of six heavy barrels of toxic battery components each weighing up to a ton. When Glen Maxham of the Save Lake Superior Association pointed out this error, Tracey Ledger, the Environmental Director at Red Cliff, asked, "How could a barrel weigh a thousand pounds?"

The answer is a cliché: They don't call it "heavy metal" for nothing. Fifty-five gallons of lead weighs 5,269 pounds. A barrel of concrete weighs 988 lbs. A drum of paint weighs 550 lbs., depending on the type, and 55 gallons of diesel fuel weighs 393 lbs. Concrete, lead, PCB oils and a dozen other toxicants and heavy metals, including chromium, cadmium and benzene, were found inside drums recovered in 1994.

Since October 1996, 713 arrests have been made for civil resistance at ATK's headquarters, now in Eden Prairie, Minnesota.

Alliant is the largest supplier of depleted uranium munitions in medium (25 mm and 30 mm) and large caliber (120 mm) sizes. The company has produced over 18 million shells containing "depleted" uranium-238 penetrators since 1976. The munition was first developed by the Honeywell Corporation.

ATK currently machines and assembles uranium munitions at the Radford Army Ammunition Plant in Virginia. Production depends on intermittent contracts. The waste uranium-238, left from the enrichment of uranium for reactor fuel and H-bombs, is supplied by Aerojet.

ATK, Uranium and the Environment

The New Brighton/Arden Hills, Minnesota Superfund site consists of the Twin Cities Army Ammunition Plant (TCAAP) — operated by Honeywell and later by ATK — and the surrounding communities contaminated by its chemicals. Between 1941 and 1981, TCAAP's waste material was disposed of at 14 sites inside the complex. The Superfund area, including off-site contaminated groundwater plumes, is approximately 25 square miles.

ATK continued to produce uranium munitions at TCAAP until the early 2000s. In 2002, the Safety and Ecology

The Corps itself officially recorded dumped barrels that weighed this much. Drums dumped May 14, 1962 are described in the "Disposition Form" by then Chief of the Corps' Lake Superior Operations Division, L.A. Hauser, who wrote, "approximately 206 barrels of straight classified material must be dumped in at least 300 feet of water. Range of weight of barrels is from 720 pounds minimum to 2,040 pounds maximum."

EMR researcher Scott Carney reported that seven sites were found in his survey, six of which he identified as Lester River, Talmadge River, Knife River, Sucker River, Shoreview Road, and French River. Mr. Carney went on to say, "591 high probability targets [that is, barrels,] were positively identified" at three of the sites — Sucker River, Talmadge River and Lester — and that EMR would recover barrels next year from only those sites.

These dumps coincide with the historical record, but Mr. Carney then said, "The other four did not contain barrels." A "debris field" is what Mr. Carney called the other well-established dumping grounds. Asked if it would be more

Duluth News Tribune Trivializes Danger, Re-writes History of Poisons Found in Lake Superior Barrels

A July 28 story in the Duluth News Tribune about the Red Cliff Band's investigation of military wastes dumped by the Army Corps of Engineers into Lake Superior repeated errors that have already been corrected in published letters and commentaries.

Established facts about this compelling and well-documented controversy, even those previously reported in the News Tribune, keep being misreported, and always in a manner that minimizes dangers potentially posed by cancer-causing chemicals in the barrels.

The July 28 article notes that the barrels contained "several hazardous substances such as PCBs," but on Sept. 22, 1994 the News Tribune reported that 17 toxic contaminants were found inside, including acetone, chromium, naphthalene, toluene and xylene. Additionally, the Minnesota Pollution Control Agency's official "Results Table" on the findings says that benzene, cadmium, lead, barium, arsenic and PCBs were found in amounts that exceeded Minnesota's Recommended Allowable Limits (RAL).

The News Tribune's story states that "there's no evidence that the barrels contained more than small amounts of the hazardous chemicals or any radioactive materials." The errors in this statement have been corrected — with citations to official documents — by Glen Maxham of the Save Lake Superior Association ("No risks in Lake Superior barrels? Don't be fooled," June 7, 2008) and myself ("Article on dump sites didn't provide whole story," Sept. 30, 2007, "Key fact missing in barrel dump story," Feb. 14, 2008, "Incomplete records cover risks from barrels in Lake Superior," June 25, 2008, and "MPCA misleading public about Lake Superior barrels," Feb. 9, 2009).

In fact, the PCB concentrations found by the MPCA were 590 parts-per-billion (ppb), which is 14,000 times the state RAL of 0.04 ppb for this cancer agent. The Minnesota Health Department's March 14, 2008 "Health Consultation" re-published this breakdown of chemical concentrations.



Photo by Tom Bottolene

On June 6, about 90 activists (above) joined the second annual Walk Against Weapons, and traipsed three miles under heavy rains to Alliant Techsystems (ATK) corporate headquarters in Eden Prairie, Minnesota. The event raised awareness of ATK's war profiteering and its violations of humanitarian law. The walk was a fundraiser for Women Against Military Madness (WAMM) which organized the walk with AlliantACTION! Thousands of suburbanites witnessed this year's walk.

Corporation, a private contractor, was hired to clean up uranium and other toxic waste in Building 502* upon the decommissioning of the Army-owned site.

*Building 502 was the source of 1,457 barrels of Honeywell's military waste dumped into Lake Superior by the Army Corps of Engineers in the '50s and '60s.

accurate to say that at the other sites "the ROV was not able to positively identify high probability targets," Mr. Carney said, "Yes. It would be."

Indeed, a June 29, 1985 "Office Memorandum" by John Pegors, then Director of the MPCA's Region 1, notes that "The fourth, fifth, and sixth dumps were made at deeper depths in the vicinity of Knife Island near the mouth of the Knife River."

These Knife River barrels may have corroded and decayed enough to become a "debris field." When asked if sediments could also have obscured these barrels, EMR's Scott Carney said, "Sedimentation rates in Lake Superior are only 2 or 3 centimeters a year," and this only confirms the possibility. Since two centimeters is 0.78 inches, 55 years of sedimentation could amount to 3.5 feet. At 3 centimeters-per-year (1.17 inches), the sediment could be over five feet deep.

Rickie DeFoe, Co-chair of the Duluth American Indian Commission, said EMR's findings "only reinforce our Commission's long-standing demand for sediment testing."

Contrary to the erroneous assurance "there's no evidence" of radioactive materials in the drums, in 1990 the U.S. Environmental Protection Agency (EPA) found four barrels — 16 percent of the 24 that it scanned — that were emitting gamma radiation "above background." The EPA's "Final report of results from survey of drums in Lake Superior," by Mark O. Semler can be read at the Duluth Public Library.

In addition, submarine operator Harold Maynard was interviewed by Duluth's KBJR television on April 12, 1995, and he said that one barrel he approached with his sub made his Geiger counter start clicking. For the counter to register the radiation, the barrel's gamma rays had to pass through the steel drum itself and through the steel wall of the submarine. Captain Maynard, now retired in New York State, still stands by this statement which he repeated to me over the phone from his home last year.

This KBJR interview can be viewed on "youtube" at, www.youtube.com/watch?v=uUk9jcmEv_Y.

The July 28 story, by Mr. John Myers, also reports that in 1995 the EPA and the MPCA said "they found nothing to indicate the barrels held anything but scrap munitions." This statement can at best be called an inaccuracy and at worst an outright falsehood, since it is contradicted by Mr. Myers' own Sept. 22, 1994 article in the News Tribune. In that story, "Barrels contain toxins," Myers lists many of the 17 deadly compounds — noted above — that were found in the few barrels recovered by the MPCA and the Army Corps.

Far from finding "no apparent threat to human or environmental health," as the July 28 story says, the MPCA's Ron Swenson told Mr. Myers, "We don't believe there's any short-term threat to human health. ... What this means in the long-term for public health, for the lake's ecosystem ... for additional PCBs in fish, we still haven't determined."

This extremely weak and nuanced generalization imparts absolutely no information whatsoever, except, indirectly, that the threat posed by poisons in the barrels might be serious in the long-term. (This article ran earlier in Duluth's Reader Weekly.)

Dresden Reactor Leaks Tritium

MORRIS, Illinois — A tritium leak discovered in June at Exelon's giant Dresden reactor "is not a public or employee safety issue..." according to the company's Site Vice President Tim Hanley. A company well showed 3.2 million picocuries of tritium per liter (pCi/l), 160 times the amount of contamination allowed under the U.S. Environmental Protection Agency rules (20,000 pCi/l) for drinking water. Exelon officials issued a June 7th statement stating that the tritium "did not appear to have left the plant" grounds, 60 miles southwest of Chicago, but was still working to verify the unsubstantiated assurance. Similar levels of tritium, the radioactive form of hydrogen, were also found in company storm drains and a concrete vault. According to the EPA, exposure to tritium can increase people's risk of cancer. Exelon's Braidwood reactor leaked 6 million gallons of tritium-contaminated water into off-site groundwater. The company hid that information for ten years, failing to notify the public or the NRC, resulting in several law suits.

— WGN Radio News, June 15; *Morris [Illinois] Daily Herald*, June 8; *Chicago Tribune*, June 8 & 16, 2009

Braidwood Shutdown Causes New Tritium Release

BRACEVILLE, Ill. — The loss of off-site power for more than 15 minutes on July 30 forced the unplanned emergency shutdown of the Exelon's Unit 2 reactor at Braidwood, Illinois. A faulty transformer disrupted two off-site diesel generators, which led to the reactor shut-down. The accident resulted in the release of an unknown amount of tritium to the air sending a plume 100 feet high.

The steam contained up to 38,000 picocuries of tritium per liter of water (pCi/l). Neighbors reported that the sound of the steam release was like a 747 taking off and lasted for over an hour. The NRC's report was nearly unintelligible: "The Unusual Event declaration was caused by a sudden pressure relay on SAT 242-1 causing a lockout of both SATs followed by a trip of Unit 2 due to the 2C RCP tripping during the automatic bus transfer for bus 258. This led to a loss of off-site power to Unit 2. It is currently unknown why the sudden pressure relay on SAT 242-1 actuated."

In 2005, Braidwood operators were found to have covered up chronic tritium leaks for over 10 years, during which it released six million gallons to the groundwater and the atmosphere.

After the recent accident, Bryan Hanson, Vice President of the Braidwood station, said to the press, "... this kind of steam venting is part of the plant design and poses no environmental health or safety issues to workers or to the public."

But independent scientists disagree. "With a relatively short half-life of 12.3 years, tritium is highly radioactive,"



"If we're going to keep this quiet, we'll need a public enquiry"

writes Arjun Makhijani, President of Institute for Energy and Environmental Research (IEER). One gram of tritium in tritiated water, Makhijani writes, "will contaminate 500 billion gallons of water up to the current drinking water limit of 20,000 pCi/l set by the U.S. EPA." In addition, "beta particles, like those emitted by tritium," Makhijani writes in IEER's *Science for Democratic Action*, "are often much more effective at causing harm than currently assumed by regulations."*

Last year, during a Citizen Information Network meeting in Godley, Illinois, Dr. Makhijani said any radiation absorbed into a woman's reproductive system, from tritium or otherwise, can pose risks to her future children.

Exelon has already agreed to pay \$11.5 million toward a new water supply for the village of Godley, immediately southwest of the Braidwood site. Well tests of the village's water supply found some tritium contamination after 2005. The company denied responsibility but Exelon is currently paying for bottled water.

*See: IEER's October 2006 report, "Science for the Vulnerable: Setting Radiation and Multiple Exposure Environmental Health Standard to Protect Those Most at Risk," www.ieer.org/campaign/report.pdf.

— *The Examiner*, Aug. 1; Professional Reactor Operator Society, Aug. 2; *The Herald News*, July 31; *Chicago Tribune*, July 31 & Aug. 3 & 4; Reuters, Aug. 7; CBS May 4, 2009, "Health Risks of Tritium," *Science for Democratic Action*, IEER, Feb..2007.

Oyster Creek Secrecy

LACEY, New Jersey — Two tritium leaks were accidentally discovered April 17 at the Oyster Creek reactor, the nation's oldest, but Exelon want the cause kept secret. Workers replacing an underground cable discovered the contamination. Monitoring wells were dug to determine the extent of the spread.

While state lawmakers have asked to see the NRC's analysis of the leak, Exelon, the owner, formally asked the agency to keep its report on the cause of the leaks secret. According to Neil Sheehan of the NRC, Exelon "... makes several arguments, including the proprietary nature of information in the document and its concern that the disclosure of the contents will restrain company personnel from being as 'frank, candid and self-critical' in the future."

And then there's the failed transformer problem, that caused reactor shut-downs in November, February and April. The transformers convert Oyster Creek's power output to the grid.

A July 13 thunderstorm damaged Lacey Township's power supply and Oyster Creek shut down as a result. Electricity was out for about 2.5 hours but the reactor remained shut down pending testing.

In spite of three unplanned shutdowns and a tritium leak within the past nine months, the NRC agreed on April 8 — a day before its expiration and one week before the tritium leak was exposed — to extend the reactor's operating license for another 20 years. — *The Star Ledger*, April 1 & May 26; Associated Press, April 18, 30 & July 13; *Asbury Park Press*, July 29; *Press of Atlantic City*, July 9, 2009

Crane Crash at Bruce Power

TIVERTON, Ontario — Workers at Bruce Power in Canada are blowing the whistle on the aging facility after a crane load of steel crashed 65 feet to the ground on May 12, barely missing employees. Five days later, another load of a 1,000 pounds carried by a separate crane began to "swing." The episodes were not publicly reported for over a month.

A day before the May 12 fall, a crane operator noted a problem with the equipment in a logbook. But the crane was never inspected or put out of service. The May 11 logbook entry says the hoist was "creeping down with 7,000 lbs. on it." An inspection showed that both brakes on the crane were faulty.

The crane carrying the dangerously swinging load had a work order for repair and should have been out of commission.

An anonymous employee quoted in the *Toronto Star* said, "It's a systemic failure, a complete breakdown of procedural barriers." The load came within 15 feet of striking workers. Bruce Power Chief Executive, Duncan Hawthorne said that although the accident happened at a reactor site it posed no danger to the public.

Bruce Power scrapped its plans to build as many as six reactors in the province and intends instead to refurbish six existing units. The cost of refurbishing two of the reactors is expected to be \$3.4 billion, up from the initial \$2.7 billion. The company continues to pursue reactor construction in Alberta or Saskatchewan. Bruce Power is a partnership of Cameco, TransCanada, BPC Generation Infrastructure Trust — a trust established by the Ontario Municipal Employees Retirement System — the Power Workers' Union and The Society of Energy Professionals. — *Platts*, July 23, *Toronto Star*, June 29; *The Star Phoenix*, June 30, 2009

Davis-Besse Explosion

OAK HARBOR, Ohio — At the Davis Besse reactor's "transmission switchyard," an explosion at an electrical current monitoring device occurred near midnight June 25. Workers were repairing electrical equipment at another part of the system and didn't recognize the event as an explosion until daylight. The blast knocked out one of the reactor's two off-site power sources used during emergencies. FirstEnergy Corp. was tardy in reporting the incident until daylight and filed an "after-the-fact declaration." Federal regulations require two separate outside power sources at all times as well as two on-site diesel generators for emergency power. Davis-Besse continued operating with the NRC stipulation that repairs be completed within 72 hours or the reactor would be shut down. The cause of the explosion remains a mystery. Davis-Besse is located on Lake Erie, 35 miles east of Toledo. — *Toledo Blade*, June 26, 27; NRC Report, June 25; & *Cleveland Plain Dealer*, June 26, 2009

Shots Fired at Reactor Site

LUSBY, Maryland — Stray bullets from a firing range on the secured grounds of the Calvert Cliffs nuclear reactor shattered windows and one struck an "outage control center," a command area used to stage refueling work. At least five bullets overshot the firing range and traveled more than a half-mile before hitting reactor buildings and a vehicle parked nearby. It was a work day and the reactor was full of employees, although none were injured. Firing ranges apparently are common to the nation's nuclear facilities. The range at Calvert Cliffs is used by local law enforcement agencies about 200 days a year. NRC spokeswoman Holly Harrington said the agency was briefed but was not conducting its own investigation. "This wasn't a [reactor] safety or security issue, so we're really not involved," she said. — *The Washington Post & Associated Press*, May 28, 2009

Resistance for a Nuclear Free Future

Celebrating 30 Years
of the
Nuclear Resister and
Nukewatch

A national gathering to advance
the role of nonviolent direct action
for nuclear disarmament
and a nuclear-free energy future

July 3, 4 & 5, 2010

Join us at the Y-12
nuclear weapons complex
in Oak Ridge, Tennessee

At this critical time in the movement for a nuclear-free future, Nukewatch and the *Nuclear Resister* are marking their 30th anniversaries. The two groups have already begun planning a national gathering to increase awareness and action around nuclear weapons and reactors and advance the role of non-violent action and civil resistance in the movement. We will also celebrate the 30th anniversary of the Plowshares movement and the inaugural Plowshares Eight disarmament action of Sept. 9, 1980.

The gathering of both new and seasoned activists is on the July 4th weekend, 2010, and includes a celebration, discussion, nonviolence training and nonviolent direct action. Along with the Oak Ridge Environmental Peace Alliance (OREPA), the convergence will be held in Knoxville, Tennessee, with protest and resistance at the Y-12 nuclear weapons complex in nearby Oak Ridge — where OREPA has sustained a nonviolent campaign for over 20 years.

We will gather two months after the 2010 Nonproliferation Treaty review conference and before the mid-term elections — a time when public attention needs to be focused on nuclear disarmament and a nuclear- and carbon-free energy future. This will be an opportunity to meet with like-minded activists and to learn from and build upon the lessons of past anti-nuclear direct action campaigns as we highlight the need for increasing resistance to nuclear weapons, nuclear power and the entire radioactive cycle.

The celebration also takes place on the eve of the 14th anniversary of the July 8, 1996 World Court advisory opinion which declared first strike weapons illegal.

Watch for more information throughout the year. Mark your calendar now and plan to join the celebration.



Hanford is the Bomb

RICHLAND, Washington — The giant Hanford Nuclear Reservation is saddled with nine decrepit plutonium production reactors, 32 million cubic feet of radioactive waste and a legacy of having dumped 210 billion gallons of liquid rad waste into the ground and ground water. The 586-square-mile site holds the distinction of being the most expensive cleanup project in U.S. history, now estimated to run about \$98 billion — more than \$2 billion a year.

One particularly vexing multi-billion dollar dilemma now concerns sludge. Fifty-three million gallons of highly radioactive goo — a mix of waste created by plutonium extraction or “reprocessing” — is stuck at the bottom of huge underground tanks and waste basins. The tanks have been mostly emptied of liquids, but attempts to remove and treat the extremely dangerous sludge have repeatedly caused new cleanup problems. The tanks belch fumes that have sickened cleanup workers. Some of the material has a 200,000-year radioactive half-life. Consistency of the bottom 10 percent of the muck varies from liquid, to mud, to concrete.

According to an agreement between Washington State and the Energy Department, the sludge was to be “treated” by the end of this year. They’re not even close. A treatment facility will not be finished until 2019, if then, and the tanks will not be emptied of sludge until 2047 — over 100 years since Hanford started to produce plutonium for the bomb that decimated Nagasaki, August 9, 1945.

Hanford’s wastes have contaminated 260 billion gallons of groundwater heading for the Columbia River, a source of drinking water for local towns and Portland, Oregon, population 575,000. The contamination came from 67 of the 149 single-shell tanks which by 1975 were known to have leaked 500,000 gallons. All together, Oregon Public Broadcasting (OPB) reported that, “about 70 containers have leaked a million gallons of waste into the ground.” Additional contamination came from 210 billion gallons of liquid wastes deliberately injected directly into wells and allowed to seep into the soil.

A new DOE contractor, CH2M Hill Plateau Remediation, has collected around 54 1-gallon bottles of sludge which is being sent to Pacific Northwest National Laboratories for analysis.

Entire systems must still be designed and tested to remove, separate and ultimately isolate and store the material.

Sludge is also a problem in waste storage ponds known as the K West and K East Basins, 400 yards from the Columbia River. They are attached to the now-shut-down K West and K East plutonium production reactors. The basins, which had been used to cool irradiated fuel from the reactors, still hold 2,300 tons of this waste fuel which was left “to corrode and contribute to sludge that collected in the pools from dirt, sand and concrete that sloughed off the walls of the basin[s],” OPR reported.

The bottom mixture is highly radioactive, difficult to handle and consists of everything from tiny, sub-micron-size particles that disperse in water, to particles up to a quarter of an inch, including fragments of irradiated fuel. The uranium particles are heavy and difficult to move through piping, are abrasive to pumps and can generate flammable hydrogen.

Washington and Oregon filed a joint lawsuit in 2008 urging specific measures to prevent further environmental damage to the Columbia River.

Bechtel, contracted since 2000 to build a “vitrification” factory (to turn liquid waste from the tanks into solid glass-like logs for disposal), began with a projected budget of \$4.3 billion. After 10 years of construction, the cost has soared to \$12.2 billion, the project is still 10 years from completion, and the process comes with no guarantee that it will work.

— *Tri-City Herald*, July 14; *The Oregonian*, Aug. 11; Oregon Public Broadcasting, July 7, 2009; *Deadly Defense: Military Radioactive Landfills*, Radioactive Waste Campaign, 1988.



Sellafield's Reckless Endangerment

CUMBRIA, Britain — One of the last leaking tanks containing technetium-99 at England’s Sellafield site has been emptied. Since the 1970s, thousands of tons of radioactively contaminated water seeped from these tanks into the ground under the facility, which reprocessed reactor fuel to recover plutonium for weapons.

Ian MacPherson, head of manufacturing for Sellafield’s effluent plans, said in *Whitehaven News*, “This is a milestone achievement, we have successfully reduced one of the primary environmental hazards associated with Sellafield. The tank has held waste for more than half a century. It was gradually degrading and presented a known environmental risk.” Four more of the tanks, said not presently to be leaking, must have their contents removed.

The waste has been moved to a “modern high-integrity tank awaiting final treatment” after which it is supposed to be moved again to a still-theoretical underground repository.

For decades, the waste has been “treated” and discharged into the Irish Sea. Technetium remains radioactive for 200,000 years and collects in shell fish and other edible sea creatures. While the government speaks of “safe levels of radiation,” sea-goers swim near contaminated beaches.

In May of this year, an evaporator in the nuclear fuel reprocessing facility was shut down after increased levels of radiation on equipment came to light. A \$162 million replacement is being constructed and its completion is expected in 2013.

Another unexpected radiation accident occurred on January 23, when an overhead pipe leaked contaminated vapor and condensate that was being pumped to a treatment facility, from which it is normally released to the atmosphere. The leak forced the closure of a still-under-construction sludge packaging building. The ongoing waste reprocessing clean-up has cost UK taxpayers over \$55 billion to date.

In May of 2005, Sellafield’s Thorp reprocessing facility was shut down after a broken pipe leaked 108.5 cubic yards of a uranium and plutonium solvent into a steel chamber designed for such accidents. Thorp is currently handling 700 tons of waste fuel rods. The \$2.9 billion factory went into operation in 1997 with the assurance from its then owners, British Nuclear Fuels, Ltd., that it would reprocess 7,000 tons of waste fuel in the first 10 years of operation — two-thirds of the waste coming from abroad. To date, the facility averages 200 tons per year, about one-sixth of its design capacity. — *Bellona*, May 20; *Whitehaven News*, Jan. 28 & June 18; *Your Industry News*, May 19, 2009; *The Guardian*, April 18, 2002

German Rad Waste Dump Explosively Dangerous

REMLINGEN, Lower Saxony, Germany — Radioactive waste, the Achilles Heel of the nuclear power industry, causes no end of problems. One dump in north central Germany is no exception. An old salt mine has been turned into the Asse waste storage site and the walls of the mine have been crumbling, radioactive salt brine has been pouring through the excavated caverns and the brine has been detected at depths of 3,000 feet. Explosives were found to be stored near radioactive waste drums. In July, the Federal Office for Radiation Protection removed the explosives which included eurodyn-2000, an extremely toxic, nitroglycerine-based dynamite, vulnerable to shock, friction and fire. Tunneling continued in the dump before the explosives were removed. According to Germany’s *The Local*, “Files from the Research Centre for the Environment and Health (GSF), which used to run the storage facility, show that over the last few years a bog of radioactive salt water has built up by the entrance to the explosive chamber.”

Explosives are not the only problem at Asse. The site contains over 125,000 vats of radioactive waste discarded between 1967 and 1978. The waste includes 61 pounds of plutonium and used reactor fuel. Since 1978, about 126,000 barrels containing toxic chemicals including arsenic, lead and pesticides have been stored in the salt mine.

German Environment Minister Sigmar Gabriel is reported to have said that the facility has “as many holes as Swiss cheese,” and that Asse is “one of the worst examples of irresponsibly handling the issue of permanent storage of nuclear waste.”

A piece of rock fell from the cavern in an area not containing waste but the incident prompted the dump operator to remove loose overhead rocks and plug the waste chamber in order to prevent the leak of radiation should a piece of the ceiling fall on the waste. A monitoring program has been started to check radiation levels and record rates of cancer and leukemia in former and current employees.

The Asse site is crumbling, the waste storage chamber is damaged and further spread of radiation seems inevitable. — *The Local* [Germany], June 26 & July 15; Reuters, May 25; & Asse Public Relations, July 23, 2009; Goethe-Institut, “Climate Protection through Atomic Energy?”, Dec. 2008

Denver Federal Center Site Construction Workers Face Hazards Left from WWII

LAKEWOOD, Colorado — For a year, workers at the construction site of the new St. Anthony’s Hospital and Federal Center in Denver have been digging in an off-record unlicensed radioactive waste dump without being told of the dangers. The soil and groundwater contain uranium wastes as well as arsenic, dioxin, beryllium, trichloroethylene solvent, asbestos, pesticides and various other toxic metals.

Some of the poisons came from the Army’s former Ordinance Plant, an ammunition factory that operated in the 1940s. The radioactive materials came from a still-operating research reactor and its rock sampling program. Workers have experienced rashes associated with exposure to the contaminants.

The local Fox News affiliate KDVR-31 reported that the Colorado Department of Public Health and Environment (CDPHE) does not believe there is any unacceptable risk to the public, to the workers on the property, or the people who are conducting the remediation work at the site, according to David Walker, who is in charge of the cleanup project. Reports are that only one third of the area has been cleaned enough for unrestricted use. The CDPHE has said that radiation in the groundwater occurs naturally, and that no one is using it for drinking.

Eight laboratories in the government’s “Building 53” were used to conduct U.S. Geological Survey (USGS) radiological instrument calibration and rock sample analysis for 40 years between 1973 and 2003. The crushed and often radioactive rock was simply dumped at the site without regulation. The EPA admits that worrisome isotopes include americium, strontium, radium and “natural uranium.”

Colorado’s only reactor — a General Atomic-designed research reactor built in the 1960s and operated by USGS — still operates on the site. “The radioactive waste it produced was buried on site for years,” Fox 31 news reported July 20.

According to a recent report by the Rocky Mountain Colorado Peace and Justice Center, the Government Services Administration and the USGS have “refused to evaluate radionuclides in site studies [that] federal government contractors conducted from 2005-2007, and argued that

CDPHE had no regulatory authority to do anything about radionuclides at the site.” The health and environment department apparently agreed, the report found, but “has taken no steps with either [the Energy Department] or Nuclear Regulatory Commission to obtain the assessments needed to assure that workers on site and the surrounding [area] are not being exposed to such substances”

The Peace & Justice Center report also noted that the General Services Administration and the CDPHE “have failed to inform the surrounding community in general fact sheets recently distributed that the site is extensively contaminated with high levels of uranium and arsenic, and also contains beryllium, dioxins, explosives and other toxic compounds.”

The study concluded that “independent oversight by community, environmental and labor organizations is recommended to watchdog the agencies tasked with the protection of public health.”

— KDVR Fox 31 News, July 20, 29 & 30, 2009; U.S. EPA, “Finding of No Significant Impact,” Docket No. 030-08219, April 18, 2006; Rocky Mountain Peace & Justice Center report, “Grounds for Concern,” 2009



The Rocky Mountain Peace & Justice Center has dug into Army ammunition waste dangers at the new Denver Federal Center site. The group’s report is available at <http://www.rmpjc.org/>

Footnotes from U.S. Nuclear Arsenal, on Page 1.

Reported in Cochran, Arkin & Hoenig, *Nuclear Weapons Databook*, Vol. 1:

¹ The W76 is a 100 kiloton device for the Mk-4 Trident I or C4 submarine-launched ballistic missile (limited to 4/missile by the SORT treaty).

² The W87 was made for the now-dismantled MX missile system. On Minuteman III missiles it is “approximately equal” in power to the 335 kiloton W78. A 475 kiloton version called Mark 5 by the Navy can be used on Trident D5 missiles.

³ The W78 is a 335 kiloton device, for the Mk-12A on Minuteman III missiles.

⁴ NuclearWeaponsArchive.org and globalsecurity.org.

⁵ Maximum load is 24 nuclear weapons.

On the Bright Side

Renewables A Good Investment

Worldwide investments in renewable energy companies in 2008 rose above investing in traditional energy sources and totaled close to \$155 billion, according to a new report from the UN Environment Program. Of this total, \$13.5 billion went to the companies developing and expanding new technologies, and about \$117 billion was invested in well-known renewable projects like wind, solar, biofuels, small hydro and geothermal. As a result of this rapid growth and the skyrocketing cost of nuclear, renewables took 40 percent of the actual power generation capacity additions last year, all sources combined. Global 2008 investments show a four-fold increase over 2004 the report found.

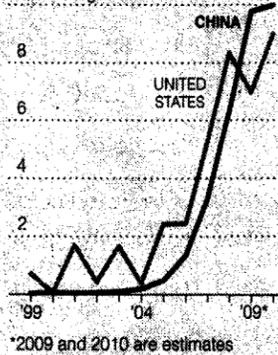
One third of the world's investment in renewables went into developing countries last year. Growth in the renewable market drastically increased in China, India and Brazil.

While Europe's investment totaled \$49.7 billion in 2008,

Blowing in the Wind

China is passing the United States in total installations of wind turbines this year.

WIND ENERGY CAPACITY ADDED
10,000 megawatts



New York Times, July 3, 2009

the U.S. put in 8 percent less than the previous year. Yet venture capital investment in renewable energy reached a record level of \$3.4 billion in 2008 according to research by Greentech Media Inc., as reported in *The Boston Globe*. Globally as well as in the U.S., wind leads in renewable technology dollars but solar had the largest growth at 49 percent between 2007 and 2008. Biofuels actually lost ground with a 9 percent decrease.

Global renewable business has become GE's fastest-growing sector according to Alex Urquhart, President and CEO of GE Energy Financial Services. GE invested in the

windfarms evident on the plains of Oregon, Minnesota, Illinois and Texas owned by Horizon Wind Energy LLC of Houston. Even Google announced plans back in 2007 to invest in renewable energy technologies and now sports articles such as, "Should you Spring Clean Your Solar Panels?"

Good news for those thinking of purchasing renewable energy systems — the price for some parts such as a solar module was predicted to drop by 43 percent into 2009.

— *Las Vegas Review-Journal*, Aug. 10; Global Trends in Sustainable Energy Investment 2009, prepared for the UNEP's Sustainable Energy Finance Initiative by New Energy Finance; *Wall Street Journal & Associated Press*, June 3, Renewable EnergyWorld.com, June 12, 2009; & *Fairfield & Hays*, Nov. 10, 2008

Nuclear Power Would Cost Trillions Over Renewables

By Brendan Borrell, 60-Second Science Blog

Nuclear power [reactors] may not emit greenhouse gases, but they sure could suck in the tax dollars.

An analysis by economist Mark Cooper at the Vermont Law School claims that adding 100 new reactors to the U.S. power grid would cost taxpayers and customers between \$1.9 and \$4.1 trillion over the reactors' lifetimes compared with renewable power sources and conservation measures.

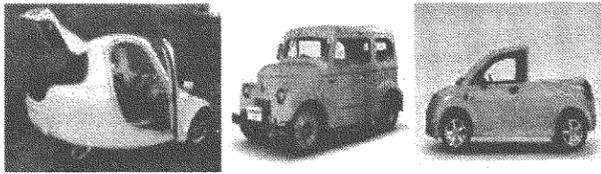
The analysis factors in studies from Wall Street and independent energy analysts estimating the efficiency of renewable energy at 6 cents per kilowatt hour versus 12 to 20 cents per kilowatt hour for nuclear. Cooper says those costs will fall on either ratepayers through higher electric bills or on taxpayers through large subsidies.

"It is telling that in the few short years since the so-called 'Nuclear Renaissance' began there has been a four-fold increase in projected costs," Cooper said in a statement. "The original low-ball estimates were promotional, not practical; they were based on hope and hype intended to promote the industry."

Cooper's study comes on the heels of a recent review of the state of nuclear power by a team from the Massachusetts Institute of Technology. The researchers concluded that nuclear power was not the most cost-effective way to reduce greenhouse gases and that waste management and safety issues must be addressed for it to remain a viable option. In 2003, the MIT team expressed similar skepticism in a report co-authored by John Holdren, now President Obama's science advisor.

Indeed, any new nuclear plants are a long way from fruition. Although 17 applications for 26 new reactors have been filed with the U.S. Nuclear Regulatory Commission, not one is under construction.

— *Brendan Borrell, Ph.D writes for Scientific American, New Scientist, Slate, Smithsonian and the Los Angeles Times and is a member of both the National Association of Science Writers and Investigative Reporters and Editors.*



Germany Pushes for Electric Cars

BERLIN — Germany has announced a "national electromobility plan," a program to put a million electric cars on its roads by 2020. According to Economy Minister Karl-Theodor zu Guttenberg, "Our goal is to make Germany the leading market for electro-mobility." The government is investing more than \$700 million over the next three years to improve technology and integration and build charging points across the country. Car manufacturers Daimler and RWE are testing models this year, and Volkswagen expects its first electric car to hit the market in 2013.

Critics of the plan say it's all about image and that the proposal comes with halfhearted zeal because the federal government continues to subsidize gasoline- and diesel-powered cars. Still, Berlin is offering incentives for research into batteries and charging systems in order to stay competitive with the growing Asian and U.S. markets.

Der Spiegel reports that, "one in five Germans are postponing buying a car because of interest in getting an electric one."

However, electric cars currently cost more than traditional gas-guzzling models and Germany currently offers no subsidies to electric cars buyers. Germans purchase 3.7 million cars every year, and have 44 million on the road now, so having one million electric cars on the road will have a minor effect on the market. Even conventional car sales are expected to drop to under 3 million next year.

What has not been addressed with the interest in electric cars is the source of energy used to power them. According to the financial daily *Handelsblatt*, "If they were to use the current energy mix they would emit as much CO2 as diesel-fueled cars." — *Forbes*, Aug. 28; *Associated Press*, Aug. 20; and *The Local* (Germany), Aug. 9, 2009

Austrian Reactor Goes Solar

ZWENTENDORF, Austria — At a July 24 ceremony that included the presentation of the first "Save the World Awards," a cancelled nuclear power reactor facility was opened as a solar power center 30 miles west of Vienna.

The Zwentendorf reactor never produced electricity and was abandoned in 1978 when a national referendum voted down nuclear power and its unresolved radioactive waste problem. Austria spent \$713 million and seven years building the doomed reactor when 50.5 percent of Austrians voted against its start-up. The vote prevented the first of six planned reactors from ever going on line.

The facility sat dormant for 30 years until the government spent \$1.7 million to transform it into a solar electric generator. One thousand solar panels now cover the concrete walls and area around the unfinished reactor building and will produce electricity without pollution or a monthly bill.

— *SolarNews.it*, July 28; *Greenpeace*, July 25 & 27

NUKEWATCH QUARTERLY



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Renewable Energy Outperforms Nuclear

The London *Guardian* recently carried a salient and panicky warning from utilities EDF Energy in England and Germany's E.ON. Sounding like an industry on the ropes, "EDF and E.ON have warned the government they may be forced to drop plans to build a new generation of nuclear power [reactors] unless the government scales back its targets for wind power." If the two sectors cannot coexist, the easy choice is renewables.

The International Atomic Energy Agency (IAEA) reported last September that nuclear reactor-generated electricity experienced zero growth in 2008 compared to solar power which grew by 62 percent and wind which grew by 29 percent. The megawatts of renewable electricity equals the output of 32 new 1,000 MW reactors. The amount of renewable energy will soon overtake nuclear as a dominant source of global electric power. Worldwide nuclear capacity is currently 370,000 megawatts and dropping. The total capacity of wind and solar is 136,000 MW and growing. If the growth of wind energy continues, by 2030 electricity generated by wind turbines will be three times that of nuclear.

In Germany and Spain, the renewable industry is boosted through a feed-in tariff requiring utilities to buy renewable electricity at premium prices, encouraging even more electricity generation through wind and solar. In Canada, the Green Energy and Economy Act is North America's first feed-in tariff. Renewable energy has a politically unifying effect on communities, unlike the divisiveness that nuclear reactor proposals produce. Overall, 90 percent of Canadians want renewable energy both to reduce carbon emissions and to create jobs.

In Maryland, Constellation Energy hopes to construct a new nuclear reactor at Calvert Cliffs. The debate between renewables and nuclear is heating up. A recent comparison that considers reliability, cost, safety, environmental impact and a boost to the local economy shows that renewable energy is likely to outperform nuclear power on all fronts. In the spring of 2008, state lawmakers created or expanded clean energy programs including a program of energy efficiency initiatives. The project's goals include reducing electric demand while creating electricity-generating facilities with solar panels. The renewables program could produce more electricity than a new Calvert Cliffs reactor — without its disaster risks or million-year wastes.

It takes at least 10 years to build a new reactor. Renewables deliver much faster at far less cost. According to a 2008 Maryland Public Interest Research Group (MPIRG) report, nuclear power costs between 12 and 22 cents per kilowatt hour. Renewables come in at 2-to-8 cents. Proponents of a large wind farm off the Delaware coast estimate the power would cost less than nuclear — 11.7 cents/kWh. No surprise here, when the lowest construction cost guess for a Calvert Cliffs reactor is \$6.9 billion. Estimates of taxpayer subsidies for the reactor are a minimum of \$13 billion, leaving ratepayers and taxpayers to hold most of the financial, and all of the safety risks.

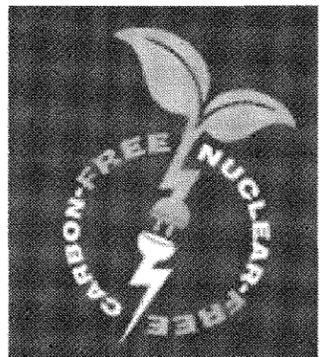
MPIRG's report mentions the American Council for an Energy-Efficient Economy calculation, "that if Maryland tapped into its energy efficiency potential with six energy efficiency policies and an advanced load management program, residents would save about \$10 a month on electricity by 2015. These policies would return \$4 in energy bill savings for every dollar invested," plus create 12,000 new jobs by 2025. Constellation Energy reports that another reactor would add only 360 jobs in Calvert County. — (Saskatoon) *Star Phoenix*, June 23; *Guardian*, March 16; Maryland PIRG, "How Clean Energy Outperforms Nuclear Power," 2008 (www.marylandpirg.org/static/Powering-Marylands-Future.pdf)

Carbon-Free, Nuclear-Free

This is the logo for a growing alliance to create a sustainable energy future. Campaigners are following a "Road Map for U.S. Energy Policy" described in *Carbon Free & Nuclear Free* by Dr. Arjun Makhijani. The facts are shocking and optimistic. "To prevent climate change, the U.S. must phase out fossil fuels and nuclear energy by 2050. We can do this, according to both science and economics. All we need is the political will to make it happen."

"We can eliminate carbon emissions from the U.S. energy system by 2050 without relying on nuclear power, and we have a plan to do it." The *Carbon-Free, Nuclear-Free* roadmap for U.S. energy policy shows in detail, step-by-step, how to get from today to the world we want to live in.

To join the campaign and to see how to "take action," join state groups, find information and resources and keep up on the latest news, check out: www.carbonfreenuclearfree.org/



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Nuclear Medicine Causing “Tens of Thousands” of Cancers

By John LaForge

“... we know that doing 62 million scans every year for a population of 300 million is not just unnecessary and wasteful, but it's dangerous. It's producing tens of thousands of cancers.”

— Dr. Atul Gawande, Dana-Farber Cancer Institute surgeon, on NPR's Morning Edition, Sept. 3, 2009

CT and PET scanners expose at least four million North Americans to high doses of radiation each year, a new study shows.

Around 400,000 of them get very high doses, higher than the maximum *annual* doses allowed for nuclear reactor or weapon site employees or anyone working with radioactive materials, according to the article in *The New England Journal of Medicine*.

PET stands for positron emission tomography. CT refers to computed tomography. A positron is a subatomic particle like an electron except it has a positive charge.

PET scans start with injecting a patient with radioactive tracer isotopes that then accumulate in the tissues being examined. The radioactive elements typically used in the scans are carbon-11, nitrogen-13, oxygen-15 and fluorine-18.

The new study did not estimate how many cancers the radioactive CT and PET scans might cause over time. But Dr. Rita Redberg, a cardiologist and researcher at the University of California at San Francisco, told the *New York Times* that “tens of thousands” of additional cancers would probably result from the treatments.

And an often-cited 2001 study published in the *American Journal of Roentgenology*, concluded that, “In the U.S., of

approximately 600,000 abdominal and head CT examinations annually performed in children under the age of 15 years, a rough estimate is that 500 of these individuals might ultimately die from cancer attributable to the CT radiation.”

“It's certain that there are increased rates of cancer at low levels of radiation, and as you increase the levels of radiation, you increase cancer,” Dr. Redberg said.

In 2007, the Health & Human Services Dept. reported that the number of CT scans ordered for Medicare patients has nearly quadrupled between 1995 and 2005. The number of PET scans rose even faster.

“Federal rules allow physicians to profit from the use of machines they own or lease,” the *Times* reported. Dr. Reza Fazel, the new study's chief author, said the use of the scans seems to have increased between 2005 and 2007 as well.

Radiation doses to patients were measured in millisieverts. The average U.S. resident gets about three millisieverts per year from radioactive pollution and the radioactivity found in nature.

The paper found that about four million U.S. patients receive cumulative doses over 20 millisieverts, or seven times the annual average from other sources. Of that group, ten percent or 40,000 received *at least* 50 millisieverts, “more than the annual maximum that nuclear regulators allow,” the *New York Times* reported.

In an editorial accompanying the news article, Dr. Michael Lauer wrote, “We have to think and talk explicitly about the elements of danger in exposing our patients to radiation.”

— *New York Times*, August 27, 2009; “Estimated Risks of Radiation-Induced Fatal Cancer from Pediatric CT,” *American Journal of Roentgenology*, 2001.

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