

‘Depleted’ Uranium Around the World

Corroding chemical gas tanks storing DU

PADUCAH, Kentucky — Cylinders storing depleted uranium at three nuclear facilities may be corroding because of toxic gas mistakenly left in them, according to a memo obtained by the Louisville *Courier Journal*. Over 2,500 cylinders at three sites — Paducah, Oak Ridge, Tennessee, and Piketon, Ohio — were previously used to store phosgene, a chemical warfare gas. The Sept. 30 memo, written by Alfred Walter, DOE Assistant Inspector General, and sent to each of the three facilities, shows that the DOE has known since Oct. 2000 that the cylinders may contain residual phosgene.

Phosgene is a corrosive, toxic gas that the Germans used briefly during World War I. Exposure to skin causes lesions and burns, and inhalation causes a victim’s lungs to fill with mucus and fluid. The cylinders were acquired during the ‘40s and ‘50s from the Army’s Chemical Warfare Service.

There is also concern that the gas is corroding the 14-ton tanks, risking a leak or threatening a dangerous chemical reaction. “We believe the findings may warrant immediate attention,” Walter said in the memo.

Iran’s President calls DU use a war crime

Iran’s president Mahmoud Ahmadinejad said Nov. 26 that Bush administration officials should be tried on war crimes charges for its use of DU weapons, and ridiculed the U.S.’s criticism of Iran’s nuclear power program.

Speaking of the U.S., Ahmadinejad asked, “Who in the world are you to accuse Iran of suspicious nuclear armed activity?” The statement came in a nationally televised

address. The Pentagon deploys some 5,966 nuclear warheads in the continental United States and another 480 across Europe. “You who have used nuclear weapons against innocent people, who have used uranium ordnance in Iraq, should be tried as war criminals,” he said.

In reporting on the speech the *New York Times* went on to claim without attribution that “Since 2003, [U.S.] forces have fired at least 120 tons of shells packed with depleted uranium, an extremely dense material used by the U.S. and British militaries to penetrate tank armor.”

Europeans issue 3rd call for an end to DU

On Nov. 17, the European Parliament (EP) for the third time called for a halt to the use of DU munitions. The resolution says the EP “... reiterates its call for a moratorium — with a view to the introduction of a total ban — on the use of so-called ‘depleted uranium munitions.’”

On Feb. 13, 2003, the EP called on its executive body the European Council, “to support independent and thorough investigations into the possible harmful effects of the use of DU ammunition ... in military operations in areas such as the Balkans, Afghanistan and other regions; [especially] on military personnel serving in affected areas and the effects on civilians and their land; [and called] for the results of these investigations to be presented to Parliament.” The resolution further called for “Member States ... to immediately implement a moratorium on the further use of cluster ammunition and depleted uranium ammunition (and other uranium warheads), pending the conclusions of a

comprehensive study of the requirements of international humanitarian law ...”

Likewise, on Jan. 17, 2001 the EP resolved, among other things, to “[Call] on the Member States that are also NATO members to propose that a moratorium be placed on the use of depleted uranium weapons in accordance with the precautionary principle” (See “PSR ...” below)

Iraq faces huge Enviro’ cleanup cost

Iraq faces a gigantic environmental cleanup problem because of the lethal toxic and radioactive legacy of over 20 years of war, according to Iraqi officials and the UN Environment Program (UNEP), the Seattle *Post* reported.

A massive \$40 million campaign is needed just to cleanup “the tip of the iceberg” — five sites near Baghdad identified for decontamination — said Narmin Othman, Iraq’s environment minister. UNEP’s report, “Assessment of Environmental ‘Hot Spots’ in Iraq,” did not specifically address DU pollution from United States’ 1991 and 2003 bombardments. But the report did acknowledge that targeted areas “are therefore expected to have extensive DU contamination in the form of dust and large fragments. Over time,” the report points out, “DU corrodes to uranium oxide powder, causing further dispersion.”

“We not only have chemicals, we even have radiation. We have depleted uranium radiation — our program has identified 311 sites polluted by [DU], especially in the south,” Othman said.

UNEP’s Executive Director Klaus Toepfer said a project was being set up with British funding to train Iraqis to deal with depleted uranium. He declined to comment on the level of danger the depleted uranium might present.

PSR calls DU’s use “unconscionable”

The influential peace group Physicians for Social Responsibility has belatedly joined the fight against DU. In a Sept. 2005 report “Health Issues Arising from the Use of DU Munitions,” PSR says, “[N]o adequate assessment of the level of health risk associated with DU munitions and waste has been made. PSR believes the Precautionary Principle applies in the case of battlefield use of DU. In this context, the proponent of an activity, rather than the public, should bear the burden of proof. Waiting for undeniable and incontrovertible proof of harm can otherwise result in undeniable and incontrovertible harm to human health and the environment by the time that proof is available. The process of applying the Precautionary Principle must be open, informed, and democratic and must include potentially affected parties. ...”

As an organization concerned about public health, PSR recommends that:

- 1: Depleted uranium weaponry be withdrawn from military arsenals until a risk analysis can be undertaken.
- 2: The UNEP be allowed to conduct a survey of the environmental disposition of DU, currently forbidden by the U.S. military, which could be useful as a preliminary step to evaluating health effects.
- 3: The U.S. military support independent studies of the longer-term health effects of battlefield use of DU on combatants and on the Iraqi population exposed to DU in the 1991 Gulf War and the 2003 war in Iraq.
- 4: DU contaminated weapons be removed from battle sites to preclude possible long-term radiation contamination of the environment.
- 5: The Iraqi Ministry of Health initiate a prevention-oriented DU public health program, outlined above, with support from the Coalition Provision Authority and the WHO.

As physicians and health professionals dedicated to the survival of a healthful and sustainable planet, we believe that the use of DU weapons that leaves a persistent noxious environmental and public health hazard is unconscionable. We owe it to future generations to stop their use and attend to their cleanup immediately.

Rocky Flats: Cleanup or Coverup?

By Molly Mechtenberg-Berrigan

On Oct. 13, the Kaiser-Hill Company declared complete its cleanup of Rocky Flats, a large scale factory for production of plutonium pits for nuclear weapons. The facility, which operated from 1952 until 1989, is a 6,500 acre site 16 miles from downtown Denver. The 10-year, \$7 billion cleanup was said to be finished a full year ahead of schedule. U.S. Senator Wayne Allard, (R-Colo.), hailed the job as “the best example of a nuclear cleanup success story ever,” and Congressman Bob Beauprez, (R-Colo.), called Rocky Flats, “a jewel of open space to be enjoyed in perpetuity.” Eventually, the U.S. Fish and Wildlife Service plans to maintain the site as a National Wildlife Refuge, allowing activities such as hiking, biking, horseback riding and hunting.

Rocky Flats is considered by environmental groups and others to be a serious health threat to the general population and to the flora and fauna that inhabit the area. Its history as a nuclear weapons production and Superfund site is filled with backdoor dealing, illegal pollution and cover-ups.

In 1989, the FBI raided Rocky Flats after receiving detailed information of illegal burning of plutonium-containing waste. The 18-day raid involved more than 100 FBI and EPA officials and led to a two-and-a-half year criminal investigation of widespread radioactive contamination of the site and its surroundings. A special grand jury was assembled to investigate the evidence against the U.S. Department of Energy and Rockwell International, the company that managed Rocky Flats from 1975 to 1989. Although the grand jury wanted to indict six individuals and two corporations, the justice department settled the case out of court. Rockwell pleaded guilty to some minor infractions, was fined \$18.5 million, and all major criminal charges were dropped. The Dept. of Justice sealed the contamination evidence compiled by the grand jury, keeping it from public scrutiny. When parts of the report were leaked in the following weeks, jurors were threatened with felony charges if they revealed what they knew.

In 2004, a book entitled *The Ambushed Grand Jury* revisited the original charges. The authors, grand jury foreman Wes McKinley and attorney Caron Balkany, argued that the government used the grand jury investigation not to prosecute but to cover up. Furthermore, the authors argue that, based on the evidence acquired by the grand jury, the cleanup must be insufficient.

FBI agent Jon Lipsky, who led the raid on Rocky Flats, agrees with the book’s allegations, saying the cleanup is “woefully inadequate — a farce.” Lipsky retired early from the FBI in late 2004 and began to speak publicly about his concerns. At a news conference in January 2005, Lipsky said the DOE and the Justice Dept. had minimized the extent of radioactive contamination at the site to save money and to prevent alarm among Denver residents.

After the 1989 raid, public mistrust of the facility peaked. In 1994, when a cleanup plan was first proposed, members of the public were invited by the DOE to take a participatory role in the effort. A working group was created for the purpose of telling the DOE what the local community wanted at the site. In 1995, the group recommended that it be cleaned so that only background levels of radiation remained — about 0.04 picocuries of plutonium per gram. The group stated, “We are willing to wait as long as is necessary, but no longer than necessary, to see the site cleaned up, even if it takes generations to accomplish. When technology allows [the] cleanup to [achieve] average background levels for Colorado in a cost-effective and environmentally sensitive manner, then cleanup should be done to this level.”

In 2000 it was revealed that Kaiser-Hill, the principal cleanup contractor, had made a deal in 1995 with Congress imposing limits on the cleanup. The secret agreement set deadlines on both time and money, with a Dec. 2006 deadline and a \$7 billion spending cap on the cleanup. The deal was made before the contamination was even evaluated.

A breakdown of the cleanup budget reveals that most of the \$7 billion goes to site security, relocation of weapons-grade material, removal of bomb-production waste and demolition of buildings. Soil and water cleanup was allocated only \$473 million, about 7 percent of the total. Since Rocky Flats is to be designated a wildlife refuge, levels of allowed radiation were determined based on the “maximally exposed individual” for the site: namely, a wildlife refuge worker. The risk factor for a refuge worker is calculated based on 2,000 hours per year spent on site. While this may be a reasonable short-term application, the land will be radioactive for billions of years. It is possible that someday people will live there, grow food, and use water contaminated with radioisotopes.

In order to perform a cleanup with a limited budget, the DOE and Kaiser-Hill created separate remediation standards for surface and subsurface soil. Fifty picocuries of plutonium is allowed to remain in the top 3 feet of soil. At a depth of 3 to 6 feet, 1,000 picocuries per gram is permitted, though as much as 6,000 picocuries may be left in small areas. Below 6 feet, there is no limit on how much plutonium is allowed to remain, and controls would be put in place to monitor and contain the contaminants. A National Academy of Sciences study calls such controls “inherently failure prone.” Plutonium-239 has a half-life of 24,400 years and is known to cause genetic mutations, cancer and damage to the immune system.

The early completion of the Rocky Flats cleanup saved an estimated one billion dollars. None of this money can be used to improve the cleanup, although Kaiser-Hill can pocket up to \$560 million for finishing early and under budget. As Rocky Flats moves toward designation as a wildlife refuge, residents of the area are asking the question: cleanup or coverup?

New Warheads Still Being Conjured

While Congress killed the nuclear “bunker buster” for the time being, it appropriated \$25 million for research on the “reliable replacement warhead,” or RRRW.

Both Democrats and Republicans were happy enough about yet another H-bomb that they allotted three times the amount requested by the White House.

Another point of agreement in Congress seems to be that the machinery to manufacture nuclear weapons needs to be resuscitated. Many experts dispute the claim — made by the national weapons laboratories and their allies — that today’s Cold War-era nuclear warheads won’t last indefinitely and that a new warhead should go into production. The Republican controlled Congress seems to have been won over by the cold war scientists.

Yet the new warhead is a nearly open-ended project that “each side can define as it likes,” according to James Sterngold in the *San Francisco Chronicle*. The only guideline on development imposed by Congress was that it must be deployed without needing new underground testing. [The history of bomb testing looks worse and worse over time, with the 1997 National Cancer Institute finding that thousands of cancer deaths across the U.S. were a direct result. Indeed, we go to press on the 37th anniversary of an “underground” bomb test in Nevada that broke through the

surface and spread radioactive fallout, violating the 1963 Limited Test Ban Treaty.]

The nuclear weapons budget has more than doubled since the mid-1990s, to about \$6.5 billion a year. Yet nuclear war enthusiasts still argue for more. *Air Force* magazine reports that Gen. Lance Lord, chief of the Air Force Space Command is “drawing up plans to build a next generation” arsenal. Even as the Air Force is transferring warheads from retired MX missiles to active Minuteman rockets (“500 Minuteman IIIs are being rebuilt from top to bottom,” according to *Air Force*) Gen. Larry Welch is promoting the “reliable replacement warhead” as an “improvement.”

In a break with past practice, the Air Force’s 50 empty MX missile silos — and their launch control centers — will be kept intact, in “mothball status,” and available “in case the need for them arises.”

A few generals don’t anticipate any such “need,” and see that the warheads’ effects are too devastating to employ. Gen. William Odom (Ret.), a former director of the National Security Agency, told the *Chronicle*, “Once you get through all the imponderables of using these things, you increasingly lose your enthusiasm.... From a professional’s perspective, it’s damn hard to work up any excitement about them. Eventually, they’ll go the way of chemical weapons.”