

“Depleted” Uranium Weapons Update

By John LaForge

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

Soldiers to Sue Over DU Contamination

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

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

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

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

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

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

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

U.N. training Iraqis to measure radiation from DU

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

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

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

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

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

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

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

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

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

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

Louisiana, Connecticut call Pentagon DU tests inadequate

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

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

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

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

Radioactive Danger in Drinking Water

By Molly Mechtenberg-Berrigan

Plutonium contamination standards too weak

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

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

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

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

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

High levels of radioactivity in surface water

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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