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PRESS RELEASE

New Research Indicates Health Risks from Uranium May Be More Varied Than Reflected in Current Federal Policy

Depleted Uranium from Proposed New Mexico Enrichment Plant May Become Multi-Billion Dollar Taxpayer Liability without a Hefty Financial Guarantee

Nuclear Regulatory Commission and Corporate Options for DU Disposal Risk Long-Term Violation of Health and Environmental Standards, New Analysis Indicates

TAKOMA PARK, MD, FEB. 23, 2005 - A [new report](#) about a uranium enrichment plant proposed to be built in New Mexico concludes that it would cost between \$3 billion and \$4 billion to properly manage and dispose of the depleted uranium (DU) waste that the plant would generate. Such high costs could not be recovered from the customers for enrichment services.

The report also discusses recent research on the health effects of DU, much of it performed at the Armed Forces Radiobiology Research Institute in Bethesda, Maryland after the 1991 Gulf War, that has implications far wider than the New Mexico plant. The research indicates that depleted uranium may be mutagenic, tumorigenic, teratogenic, cytotoxic, and neurotoxic, including in a manner analogous to exposure to lead.¹ It may also cross the placenta and harm the embryo/fetus. There is also research that indicates that the chemical and radiological toxicities of uranium may, in some cases, be acting in a synergistic manner. Federal regulations limit uranium inhalation based on cancer risk and drinking water intake based mainly on kidney toxicity.

There are currently some 740,000 tons of depleted uranium in unstable hexafluoride form stockpiled at Department of Energy sites at Paducah, Kentucky, Portsmouth, Ohio, and Oak Ridge, Tennessee. LES, a corporate consortium led by the European company Urenco, wants to build the plant in New Mexico. Another company, USEC, seeks to build a similar plant in Ohio.

The report-released today by the Institute for Energy and Environmental Research (IEER) and the Nuclear Information and Resource Service (NIRS)-concludes that unless LES provides at least \$2.5 billion dollars in financial guarantees, it is likely that the people of New Mexico, U.S. taxpayers, and future generations would be stuck with a multi-billion dollar radioactive waste liability. The report was filed with the U.S. Nuclear Regulatory Commission (NRC) in late

November 2004 by NIRS and the public interest group Public Citizen as part of their legal intervention in the licensing proceeding of LES. A redacted version excluding proprietary LES corporate financial data is being released to the public today.

"The labeling of depleted uranium as 'low-level' waste by the NRC is not going to diminish its dangers," said Dr. Arjun Makhijani, principal author of the report and president of IEER. "To paraphrase Shakespeare, dangerous radioactive waste by any other name would still pose significant public health risks."

The report is entitled [*Costs and Risks of Management and Disposal of Depleted Uranium from the National Enrichment Facility Proposed to be Built in Lea County New Mexico by LES*](#). It provides data showing that depleted uranium is radiologically comparable to transuranic waste, which is waste that is significantly contaminated with plutonium and other long-lived radionuclides like it. Federal regulations define transuranic waste as that which has more than 100 nanocuries per gram of long-lived transuranic radionuclides that emit alpha radiation. DU has a specific activity of about 400 nanocuries per gram. Transuranic waste from U.S. Department of Energy (DOE) facilities is now being disposed of in a deep geologic repository in New Mexico called the Waste Isolation Pilot Plant, which is a multi-billion dollar federal government project.

"The people of New Mexico and the taxpayers of the United States may find themselves saddled with enormous liabilities," said Michael Mariotte, executive director of NIRS, which sponsored the IEER report. "Corporations can easily wiggle out of their obligations. It happened, for example, when Getty Oil dumped the wastes from its plutonium reprocessing plant into the laps of the federal government and the State of New York over three decades ago. That multi-billion dollar mess still hasn't been fully cleaned up, and the waste has nowhere to go."

"The health risks of depleted uranium may be far more varied than is recognized in federal regulations today," said Dr. Brice Smith, Senior Scientist at IEER and co-author of the report. "Children in the future may be saddled with a legacy similar to that of the sorry history of lead poisoning over the past three generations, but this time we are dealing with a heavy metal that is also radioactive."

The license application constitutes LES's fourth attempt to build a uranium enrichment plant in the United States. The first attempt, which was for a plant in Louisiana, cost LES more than \$30 million. LES withdrew the application after a citizens' group successfully challenged the NRC's environmental impact statement for the project on environmental justice grounds. Two other locations, both in Tennessee, were also explored but abandoned in the face of local opposition. DU disposal has remained a central public concern throughout.

"The NRC has so far failed to back up its claims that radiation doses from depleted uranium disposal in an abandoned mine would be within regulatory limits," said Dr. Makhijani. "Data-free analysis ought to be unacceptable in any forum, but it is especially so in an environmental impact statement prepared by a government agency charged with protecting public health and safety."

LES may consider shallow land disposal as option; sites in Utah or in Texas just across the border from LES site in New Mexico may be considered. LES may elect to pay the federal government to take on its waste. DOE is building a plant to convert DU hexafluoride to a more stable oxide form but it has not yet identified a viable long-term disposal strategy even for its own DU.

"Transfer to the DOE cannot be considered a solution to LES's waste problem," said Wenonah Hauter, director of Public Citizen's Critical Mass Energy and Environment Program. "The DOE has yet to take charge of a single spent fuel bundle from nuclear power plant operators-despite a legal commitment to begin in 1998 and billions of dollars in payments to the federal government by nuclear electricity consumers."

The report can be downloaded in full at www.ieer.org/reports/du/lesrpt.pdf

1. That is, it may cause or contribute to genetic mutations, tumors, birth defects, neurological damage, and cellular level toxicity.