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PRESS RELEASE

EPA Drinking Water Standard for Plutonium Is 100 Times Too Weak; New Research Shows Current Level is Based on Decades-Old, Obsolete Science

Waste at Nuclear Weapons Sites Threatens Vital Water Resources; EPA Urged to Act Quickly to Tighten Maximum Contaminant Limits

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Takoma Park, Maryland, August 3, 2005: The federally-allowed level of drinking water contamination by plutonium-239, one of the ingredients of atomic bombs, and other radioactive materials with similar properties is 100 times too high, according to a new scientific analysis released today by the Institute for Energy and Environmental Research (IEER). The report called on the U.S. Environmental Protection Agency (EPA) to set new standards that better protect human health.

"The EPA's Maximum Contaminant Level (MCL) for plutonium and other alpha-emitting long-lived transuranic radionuclides is one hundred times too lax because it is based on obsolete, 1950s science," said Dr. Arjun Makhijani, president of IEER and author of the new report, *Bad to the Bone: Analysis of the Federal Maximum Contaminant Levels for Plutonium-239 and Other Alpha-Emitting Transuranic Radionuclides in Drinking Water*. "The current scientific assessment of plutonium indicates that the dose to human bones is far greater than was estimated at the time standards were published."

The current MCL for plutonium and related radioactive pollutants was set in 1976, when the EPA first issued its safe drinking water standards for radionuclides under the Safe Drinking Water Act.

According to the report, advances over the past three decades in the scientific understanding of the behavior in the body of plutonium and other alpha-emitting, long-lived transuranic radionuclides shows that such radionuclides concentrate near the bone surface and deliver a dose

per unit intake that is far higher than previously estimated. The scientific research has been published by the EPA in its guidance documents. Yet, the IEER report demonstrates that the science has not been incorporated into the MCLs for these radionuclides.

"The EPA is required to review and update its rules for the protection of public health on a regular basis," said Geoff Fettus, staff attorney at the Natural Resources Defense Council (NRDC). "This IEER study shows that the EPA should act with alacrity to tighten standards to protect public health and remain within the intent and spirit of the drinking water regulations. NRDC will work with IEER and other organizations in the coming year to make sure it does so." IEER, joined by NRDC, Clean Water Action and other groups, transmitted the report today to Cynthia Dougherty, director of the EPA groundwater and drinking water office, with a letter urging the agency to change the combined drinking water limit for alpha-emitting, long-lived transuranic radionuclides from 15 picocuries per liter to 0.15 picocuries per liter. The groups also asked the EPA to incorporate the IEER analysis into the agency's next regulatory review of the radionuclides portion of the Safe Drinking Water Act, slated for 2006.

"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. Makhijani, referring to a law Congress passed in 2004 allowing the U.S. Department of Energy (DOE) to reclassify residual high-level waste as incidental waste.

According to the report, water resources such as the Savannah River, which forms the border between South Carolina and Georgia, the Snake River Plain Aquifer in Southern Idaho, and the Columbia River are at risk from wastes containing alpha-emitting, long-lived transuranic radionuclides.

"The Department of Energy is proceeding without strict, national remediation rules," said Jeremy Maxand, Executive Director of the Snake River Alliance, which has endorsed the report's findings. "Once plutonium gets into the water, it will not be possible to remediate it - and we have a ton of it here, literally, above the Snake River Plain Aquifer. Several major cleanup decisions at our site will be made in the next year or two, and the EPA needs to act to ensure that the DOE adheres to protective norms so far as drinking water is concerned."

States with water resources that may be impacted by large amounts of DOE plutonium wastes include South Carolina, Georgia, Idaho, Washington, Oregon, New Mexico, and Nevada.
The report, *Bad to the Bone: Analysis of the Federal Maximum Contaminant Levels for Plutonium-239 and Other Alpha-Emitting Transuranic Radionuclides in Drinking Water*, can be downloaded in full from IEER's website at http://www.ieer.org.