



Tularosa Basin Downwind Consortium Nuclear Watch New Mexico

Plutonium Detections From Trinity Test Discovered 78 years After Test - Confirm RECA Must Be Expanded

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Santa Fe, NM - New preliminary information strongly supports Radiation Exposure Compensation Act (RECA) status for New Mexicans downwind of the Trinity Test Site. In the past weeks, Michael E. Ketterer, (Professor Emeritus, Chemistry and Biochemistry, Northern Arizona University, Flagstaff, AZ) has completed a short "proof of principle" study that directly investigates where plutonium in soils originates by analyzing isotopic ratios, in a known portion of the Trinity Test plume.

Dr. Ketterer sampled soils along highways NM 42, US 54, NM 55, US 60, and US 380. The isotopes show that there is definitely plutonium from the Trinity Test in the northeast plume, and distinguishes it from global (stratospheric) background and New Mexico regional background from Nevada Test Site fallout. Soils along all five of these highways contain plutonium that reflects mixtures of Trinity Test debris and global/Nevada regional background fallout; in some cases, nearly 100% of the Pu originates from the Trinity Test.

While Dr. Ketterer has not encountered any activities (expressed as Bq/kg or pCi/g, Becquerels or picocuries respectively) of plutonium that cause alarm from the radio-toxicity standpoint, there's very limited data. He used acid leaching treatments that were designed to be of a rapid/screening nature. That method which likely underestimates quantities of "refractory"

plutonium incorporated into glasses and vitreous "trinitite" like "hot particles" that almost certainly exist.

Moreover, his samples were just collected this July and the data analyzed at Northern Arizona University on July 23. To be clear, this was a proof-of-principle effort. Within the next several months, Dr. Ketterer will conduct more field/lab work to get the study ready for a peer review submission.

Tina Cordova, Co-Founder of the Tularosa Basin Downwind Consortium, stated, "This is fascinating but not at all surprising when you contemplate how inefficient the Trinity bomb was and how many pounds of plutonium did not fission. We've always believed that plutonium was likely spread all across the Tularosa Basin as a result of the Trinity bomb. What a terrible legacy. We now have proof that New Mexico will forever be saddled with a radioactive isotope that has a half-life of 24,000 years! What more proof does anybody want? The time has come to add the people of New Mexico to RECA post haste. "

According to Dr. Ketterer: "The data confirm with certainty that there is a pattern of Trinity Test plutonium deposited in areas north and east of the site. Much additional work is required before a systematic picture emerges of the relative weight and geographic extent of the Trinity Test deposition."

Scott Kovac, Research Director at Nuclear Watch New Mexico, said "It is long-overdue that the federal government do right by these communities that have suffered so much."

Last week, the Senate passed an expansion and extension of the Radiation Exposure Compensation Act (RECA) as part of the annual National Defense Authorization Act. Nearly eight decades after the Trinity Test in New Mexico, far too many New Mexicans are still left out of the original RECA program. This is unacceptable given the number of New Mexicans who have suffered and even died from radiation exposure. Last week's Senate vote is a step in the right direction toward justice.

The House version of the Defense Authorization Act does not expand RECA. The Senate and House Armed Services Committees will have to meet in conference to reconcile differences. Please contact your Member of Congress in the U.S. House of Representatives to demand expansion of the Radiation Exposure Compensation Act to include long-suffering New Mexicans.

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Dr. Ketterer's poster is available at <https://nukewatch.org/ketterer-nau-trinity-study-30july2023/>

This press release is available at <https://nukewatch.org/plutonium-detections-from-trinity-test-discovered-78-years-after-test-confirm-reca-must-be-expanded/>