

**Testimony of Wayne Nastri  
Regional Administrator  
U.S. Environmental Protection Agency - Region 9  
Before the Committee on  
Oversight and Government Reform  
United States House of Representatives**

**October 23, 2007**

Mr. Chairman, members of the Committee, thank you for the opportunity to testify before you today. As the Regional Administrator for Region 9 of the U.S. Environmental Protection Agency (EPA), I have responsibility for protecting the public health and the environment in Arizona, California, Nevada, Hawaii, the Pacific Islands, and the 147 federally recognized tribes in the Pacific Southwest, including the Navajo Nation.

I am here today to discuss with you and to answer questions pertaining to the USEPA's ongoing efforts to address contamination from uranium mines in the Navajo Nation. We are working diligently with our Navajo governmental partners to protect human health and the environment.

From 1944 to 1986, nearly 4 million tons of uranium ore were mined from the Navajo Reservation from over 500 mines. Uranium mills processed this ore into refined uranium oxide, which was used for energy and nuclear weapons production. When these mines ceased operation, many of them were abandoned without proper reclamation. These abandoned mines have presented a variety of risks to the Navajo people, including physical safety hazards and radiation hazards. The physical hazards have largely been addressed by the Navajo Nation's Abandoned Mine Lands Program, using funds provided by the Department of the Interior under the Surface Mining Control and Reclamation Act (SMCRA). Remaining environmental risk may be addressed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980

(CERCLA) or other programs, such as Brownfields, SMCRA or enforcement by the Navajo.

In the early 1990s, at the Navajo Nation's request, USEPA conducted several removal actions at six of the abandoned uranium mines sites. In 1993, the Navajo Nation requested that USEPA and other federal agencies begin assessment of all abandoned uranium mines on Navajo Nation lands. With over 1000 potential sources spread over an area the size of West Virginia, USEPA Region 9 identified a three-pronged strategy for addressing the environmental hazards at abandoned uranium mines on Navajo lands. The strategy included, first, develop a process to identify the universe of uranium mine sites and evaluate cleanup options; second, use of Superfund authorities to immediately address the most imminent threats; and third, assistance to the Navajo Nation in building the capacity of its Superfund Program to take lead responsibility to assess and clean up more sites. The challenge posed by uranium mine sites in the Navajo Nation will need to be addressed through federal, state, and Tribal efforts.

From 1994 to 2007, USEPA conducted an investigation across all of the uranium mining areas on Navajo lands. We conducted aerial surveys over approximately 1,440 square miles to identify areas with elevated radiation readings. We sampled water at 226 agricultural wells and springs, and found that roughly 13% of them had elevated radiation, most likely naturally occurring in many cases. These were not regulated drinking water sources, although they might be used at times for domestic use. We surveyed 28 structures and identified two hogans with high levels of radon and gamma radiation. We mapped soils with elevated radiation, sampled wells and tested radon in Church Rock, New Mexico in a collaborative sampling event organized by a nonprofit community group. We also gathered documentary information from many sources identifying known mining operations.

Using all this information, we built an inventory of 520 abandoned uranium mine sites. The study cost almost \$12 million. Under an agreement with the Navajo Nation Environmental Protection Agency, we provided the database to them for their use. The Navajo Nation EPA is now supplementing the database to reflect cultural considerations and other criteria. Navajo Nation EPA is in the process of prioritizing the mine sites. Navajo Nation EPA and USEPA will then meet to discuss a strategy for addressing the top priorities.

The second aspect of USEPA's strategy to address abandoned uranium mines in the Navajo Nation is to take action at sites that present an imminent and substantial endangerment to human health or the environment. We conducted Superfund removal actions at a cluster of six mines in Bluewater, New Mexico in 1991. The uranium waste piles were consolidated and returned to the workings and shafts, and the site was capped with clean fill, at a cost of \$793,000. In 2001, we removed two hogans constructed of radioactive waste rock from nearby mines, in Monument Valley and the Four Corners area. The hogans were replaced or compensation provided to the residents where they were not replaced. The cost for this action was \$84,000.

This summer, we removed 6,500 cubic yards of radium-contaminated soils around residences near the Northeast Church Rock Mine in New Mexico. USEPA spent \$990,000 on the excavation, and required the responsible party, United Nuclear Corporation (UNC), to dispose of the soils at an additional cost of about \$1.3 million. USEPA plans to require UNC to perform another Superfund removal action for cleanup of the balance of the site in 2008, by addressing additional contaminated soils with an estimated volume of 1.4 million cubic yards.

Capacity-building is the third part of USEPA's uranium mine strategy. USEPA has provided funding and technical support to the Navajo Nation EPA since 1981.

At present, we provide a total of \$3.9 million annually through 11 grant programs. Over the last 16 years, we have provided \$7.8 million specifically directed to the Navajo Nation Superfund Program for site assessment and for development of the Navajo response program. In addition, USEPA's Waste Management Division has provided over \$4.5 million to the Navajo Nation's Waste programs since 1992.

Beginning in the mid-1970s, USEPA's Office of Radiation and Indoor Air (ORIA) has provided assistance to the Navajo Nation EPA to identify houses constructed with uranium mine and mill wastes. In 2001, we provided a \$45K grant to the Navajo Nation EPA for this purpose. In addition, EPA provided grants totaling \$325K during 2000-2004 to Northern Arizona University for uranium and radiation education outreach to Navajo schools. Region 9 Superfund and ORIA have coordinated their efforts and will continue to work with the Navajo Nation EPA on identifying structures which may pose radiation hazards.

USEPA has provided additional funds to expand and upgrade public drinking water systems to address uranium contamination. Since uranium is naturally-occurring in the Navajo Nation, impacts to drinking water aquifers may sometimes be attributable to natural sources rather than to mining.

USEPA Region 9 remains firmly committed to protecting public health and the environment by addressing the environmental affects of abandoned uranium mines on Navajo lands. We will continue to work closely with our Navajo Nation and other federal, state and local partners as we all help to address the environmental effects of abandoned uranium mines on the Navajo Nation.

This concludes my testimony. I am happy to answer any questions you may have.