The 5-Year Plan, along with this and past progress reports, can be found on the US EPA Region 9 website or by contacting the US EPA directly.

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Health and Environmental Impacts of Uranium Contamination in the Navajo Nation

EPA Progress in Implementing a 5-Year Cleanup Plan

U.S. Environmental Protection Agency, Department of Energy, Bureau of Indian Affairs, Indian Health Service, and Nuclear Regulatory Commission are working together to implement a 5-year plan to address the health and environmental impacts of uranium contamination in the Navajo Nation.

The EPA, in consultation with the Navajo Nation, has initiated a plan to specifically address uranium contamination at abandoned uranium mines, contaminated structures and water sources.

In the third year of the plan, EPA is identifying and addressing the most urgent risks, such as residents living in potentially-contaminated structures, and drinking from contaminated water sources.

The plan, along with this and past progress reports, can be found on the US EPA Region 9 website or by contacting the US EPA directly. Website and contact information can be found on the back of this progress report.

March 2010 Progress Report

Large-scale cleanup at the Northeast Church Rock mine

The Red Water Pond Road Community (RWPRC) is a cluster of families within the Coyote Canyon Chapter that lies between the Northeast Church Rock Mine (NECR), the Kerr McGee (Quivira) Mines, and the UNC Mill Site. Collectively these former uranium mining and milling operations have contributed to uranium contamination in residential yards, arroyos, the Red Water Pond Road, and groundwater.

In keeping with EPA's commitment to address the most urgent risks first, the EPA has conducted or has ordered a series of removal actions to address the contamination in the residential yards and lands, including portions of the arroyos, of the Navajo Nation adjacent to NECR. These actions have removed over 100,000 cubic yards of radium- contaminated soils – the largest uranium mine cleanup project on the Navajo Reservation to date.

Cleanup at Northeast Church Rock mine

Large earth-moving projects such as this can create significant disruption for the community. During these actions, 55 individuals were provided with temporary housing accommodations. EPA hopes to minimize future disruptions by working closely with the community to plan and coordinate the remaining necessary cleanup activities.

US EPA and the Navajo EPA, in coordination with the RWPRC Association, are hosting a series of public workshops to ensure that potential sources of contamination are identified and evaluated and that technical issues are discussed with the community. EPA's goal is to work collaboratively and transparently with the community to develop and evaluate the cleanup alternatives, so that EPA's decision-making process fully considers the community's interests.

Abandoned Uranium Mines (AUMs)

Background

Mine operators extracted nearly four million tons of uranium ore from 1944 to 1986 under lease agreements with the Navajo Nation. As a result, uranium mining has left the Navajo Nation with a legacy of 520 abandoned uranium mines (AUMs) that have been documented in a comprehensive GIS database and atlas. EPA's approach is to conduct on-site, screening-level evaluations to determine whether mines need further follow-up action. As EPA visits AUM sites, we also document nearby home sites and refer them to Navajo Superfund Program to be included in contaminated structures evaluations (see related story).

Accomplishments

- Completed over 200 on-site screenings of AUMS in the Eastern and Northern AUM Regions
- Completed more detailed assessments for Billy the Kid, Moonlight, Mariano Lake and Mesa 1 Mines
- Completed removal assessments for the Skyline Mine and NECR Mine

Next Steps on AUMs

- Conduct community workshops on plans to start clean up of the Skyline Mine
- Complete site screenings of 134 AUM sites in the Northern and Western AUM Regions by spring of 2011
- Complete site screenings for all 520 AUMS by 2012

Sampling at an abandoned uranium mine

Contaminated Water Sources

Background

USEPA is working with the Navajo Nation, federal agencies, and the DiNEH Project to ensure that Navajo families who haul water for domestic use do not drink from unregulated water sources contaminated with uranium. The use of unregulated water sources represents the greatest public health risk associated with drinking water for the Navajo Nation due to contamination from chemicals, bacteria, and other contaminants including uranium. Thirty percent of Navajo families currently use unregulated water sources. USEPA, Navajo Nation EPA, and partner organizations are working together to sample wells, post and conduct outreach for contaminated water sources, and find alternative supplies.

Contaminated water source on Navajo Nation

Accomplishments

- Sampled 235 unregulated water sources and found 28 that exceed standards for uranium
- EPA committed $8.6 million for the construction of infrastructure to serve 350 homes without piped water in the vicinity of 8 contaminated water sources, and to implement water hauling feasibility study and pilot program to serve about 3000 homes.
- Conducted outreach on unregulated water sources to 20 Navajo Chapters
- US EPA has funded a Navajo Nation EPA circuit rider through 2011 to provide technical assistance to residents using unregulated water sources.

Next Steps

- Work with Navajo Nation EPA, Indian Health Service, and other partners to develop alternative water supplies
- Work with Navajo EPA, the Dineh Project and the Center for Disease Control to conduct outreach on safe water hauling practices and water sources that have uranium contamination
- Assess abandoned mines that may be contributing to groundwater contamination.

Contaminated Structures

Background

A number of structures on the Navajo Reservation, including homes, hogans (traditional structures) and storage buildings may have been constructed of contaminated materials from nearby mines. Building material sources include rocks, gravel, and aggregate from mine spoils which were used in concrete mixing. Structures may also be contaminated by the presence of radiological materials found in outdoor soils and by dust brought into the homes on shoes and clothing.

Accomplishments

- 199 Structures screened for potential contamination in a combined effort by US EPA and Navajo Nation EPA Superfund Program
- Completed demolition and excavations of 27 structures and 10 residential yards
- Rebuilding 10 homes

Demolition of contaminated home

Next Steps

- Remediate at least 7 additional contaminated structures
- Navajo Nation EPA will continue to screen potentially contaminated structures and refer suspected contamination to US EPA Response Program
- Complete at least 500 structure screenings and begin remediation of contaminated structures identified by winter 2012

Newly constructed home