TESTIMONY OF
David W. Gray

U.S. ENVIRONMENTAL PROTECTION AGENCY REGION 6
DEPUTY REGIONAL ADMINISTRATOR

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Good morning Chairman Hoeven, Vice Chairman Udall, and Members of the Senate Committee on Indian Affairs. I am David Gray, Deputy Regional Administrator for U.S. Environmental Protection Agency (EPA) Region 6, which covers Arkansas, Louisiana, Oklahoma, New Mexico, Texas, and 66 Tribal Nations. Thank you for the opportunity to testify at this field hearing on the topic of "America's Nuclear Past: Examining the Effects of Radiation in Indian Country."

EPA's mission is to protect human health and the environment for all Americans, including American Indians and Alaska Natives across the United States.

EPA has a long history of working with our tribal partners to achieve our mission. The 1984 EPA Policy for the Administration of Environmental Programs on Indian Reservations (EPA Indian Policy)[1] is the foundational document for EPA's effective tribal program. It was the first formal Indian policy adopted by a federal agency specifying how EPA would interact with tribal governments and consider tribal interest.

Most of EPA's core statutes allow for tribes to apply to EPA for the authority to implement environmental programs within their jurisdictions. Approval of such applications by EPA is in line with multiple principles of the EPA Indian Policy—most notably Principle 2: "The Agency will recognize tribal governments as the primary parties for setting standards, making environmental policy decisions and managing programs for reservations…" and Principle 3: "The Agency will take affirmative steps to encourage and assist tribes in assuming regulatory and program management responsibilities for reservation lands." In April of this year, the EPA Administrator reaffirmed the EPA Indian Policy, reinforcing the importance of these principles.

EPA's 2018-2022 Strategic Plan[2] highlights our commitment to supporting more effective partnerships to achieve tangible environmental results in Indian country. Furthermore, EPA emphasizes how important tribal participation is to our mission by approving tribal program authority under most EPA statutes and allowing tribes to implement approved programs in Indian country.

[1] https://www.epa.gov/tribal/epa-policy-administration-environmental-programs-indian-reservations-1984-indian-policy
[2] https://www.epa.gov/planandbudget/fy-2018-2022-epa-strategic-plan

Every single EPA office and region works with tribes—whether it be consultation and coordination pursuant to the EPA Policy on Consultation and Coordination with Indian Tribes,[3] providing technical and compliance assistance, administering grants, or conducting EPA direct implementation activities in Indian country.

In regard to uranium mining, EPA has been working with tribal partners, primarily in Regions 6, 8, and 9, to address historical uranium mining within Indian country and its effects on Native Americans. EPA is using the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) to address uranium related impacts.

To accomplish our mission, EPA has partnered with several agencies, including the Bureau of Indian Affairs (BIA), the Nuclear Regulatory Commission (NRC), the Department of Energy (DOE), and the Indian Health Service (IHS), in consultation with the Navajo Nation, to develop two coordinated Navajo Nation Five-Year Plans to address uranium contamination located on Navajo Nation and Hopi Nation land. EPA also created a Grants Mineral Belt Five-Year Plan to address uranium mining contamination in New Mexico along with the Acoma and Laguna Pueblos, the New Mexico Environment Department (NMED), the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD), the New Mexico Department of Health, and other federal agencies.

These Five-Year Plans (collectively, the Plans) were the first coordinated approach by the federal agencies and our tribal partners to outline a strategy to gain a better understanding of the scope of the problem and to address the areas with the greatest risk. While the Plans address separate areas, the objectives in the Plans are similar and share the common goal of addressing contamination from former uranium mines.

Assessment of Water Supply Sources for Contamination

EPA, Navajo Nation, and partner agencies tested 240 unregulated rural Navajo Nation water sources for unsafe levels of radiation or radionuclides, which greatly exceeded our goal of testing 70 sources. Of the 240 water sources tested, 29 sources exceeded the drinking water standard for uranium or radionuclides. With the support of Navajo Nation Chapter officials, three wells were shut down. Working together, EPA, Navajo Nation EPA, the Dine Network for Environmental Health (DiNEH) Project, the Centers for Disease Control and Prevention (CDC), and the University of New Mexico conducted a comprehensive public outreach campaign including meeting with Navajo Nation Chapter officials, posting warning signs regarding health risks at those 29 water sources, printing announcements in the Navajo Times, and broadcasting announcements on local radio stations.

IHS, EPA, and the U.S. Department of Housing and Urban Development (HUD) have partnered to provide approximately $200 million for water infrastructure projects. This effort has provided access to piped water for 3,809 homes from 2008 to 2018.

[3] https://www.epa.gov/tribal/epa-policy-consultation-and-coordination-indian-tribes

San Mateo Creek Basin

EPA, with support of NMED, has been investigating the San Mateo Creek Basin site. NMED conducted preliminary assessment in site inspections in 2008, 2010, and 2011. This work led NMED to issue a Public Health Advisory for private wells within the San Mateo Creek Basin.

EPA completed its own two-phased groundwater investigation of the San Mateo Creek Basin in 2018. This investigation showed aquifers have been impacted by contaminated mine discharge water. Five private drinking water wells were identified during these investigations. EPA installed filtration systems on four of the wells and provided a new well to the fifth home. EPA's groundwater report provides stakeholders, including the Navajo Nation, preliminary information regarding directional flow of contaminated waters and future use of the aquifers.

Currently, EPA is in negotiations with several potentially responsible parties to conduct a remedial investigation/feasibility study of the San Mateo Creek Basin site. EPA recently added the site to the Administrator's Superfund Emphasis List; thereby showing this site is a priority for EPA, and EPA is committed to reaching an agreement with the potentially responsible parties in a timely manner, if possible, or taking other actions as necessary and appropriate to ensure site remediation. Sites are added to the Administrator's Superfund Emphasis List when direct engagement from the Administrator can lead to progress at the site.

Assessment and Cleanup of Abandoned Uranium Mine (AUM) Sites

According to DOE's Defense-Related Uranium Mines Report to Congress (August 2014),[4] New Mexico produced more uranium ore for atomic energy defense-related activities of the U.S. than any other state from 1947 to 1970. Assessing the impacts of these mines within New Mexico, other states, and tribal lands has been an important objective of EPA and our partners.

Jackpile-Paguate Uranium Mine Superfund Site

The Jackpile-Paguate Mine is illustrative of the impacts legacy uranium mining and milling have in Indian Country. The mine was one of the world's largest open-pit uranium mines, and over 2,500 acres were disturbed by mining activities from 1952 to 1982. This disturbance originally included three open pits, 32 waste dumps, 23 protore (sub-grade ore) stockpiles, and 66 acres of buildings and roads. During the 30 years of mining, about 400 million tons of rock were moved within the mine area and about 25 million tons of uranium ore were transported to the Bluewater Mill.

EPA, with the support of the Pueblo of Laguna, added the Jackpile-Paguate Mine site to the National Priorities List (NPL) in 2013. Now, EPA and the Pueblo of Laguna Environment Department are partnering to oversee Atlantic Richfield's investigation at the site. Atlantic Richfield is conducting this investigation to determine the nature and extent of the contamination and identify potential surface and groundwater cleanup alternatives.

[4] https://www.energy.gov/lm/downloads/defense-related-uranium-mines-report-congress-august-2014

The Pueblo of Laguna's work is funded through a management assistance grant from EPA to help facilitate the technical capacity of the Pueblo of Laguna's Environment Department to conduct the tribal oversight. EPA is also working with the Pueblo of Laguna to develop outreach activities and updates, to keep the community better informed and educated about ongoing investigations and other site activities.

Navajo Abandoned Uranium Mines Program

From 2008 through 2012, EPA and Navajo Nation EPA conducted screening level assessments of 523 AUMs on or near Navajo Nation. In consultation with Navajo Nation, EPA developed criteria to prioritize work at AUMs based on the level of radiation and proximity to homes and sensitive environments. This screening level assessment led EPA to focus initial efforts on conducting detailed assessments referred to as Removal Site Evaluations at 46 mine sites (i.e., priority mine sites).

By the end of 2018, EPA had entered into enforcement agreements and settlements valued at over $1.7 billion, covering the investigation and cleanup at over 200 of the 523 AUMs on or near the Navajo Nation. This included 43 of the 46 priority sites in EPA Region 9. To date, 40 Removal Site Investigations have been completed at priority mine sites.

Tronox Navajo Area Uranium Mines

EPA is working closely with the Navajo Nation and New Mexico in implementing the Tronox Navajo Area Uranium Mines program. The Tronox Bankruptcy Settlement provided funding to assess and cleanup mines ("Navajo Area Uranium Mines") on or near the Navajo Nation. Fifty-four mines received over $900 million. Twenty mines under the settlement are located in New Mexico. EPA also received approximately $89 million for CERCLA response actions at the Quivira Mine Site, located on Navajo allotment land. The remaining 34 mines are located on Navajo Trust Land. The Tronox settlement mines are a subset of the $1.7 billion recovered. The funding is to be used for CERCLA responses at the Navajo Area Uranium Mines, which includes the Ambrosia Lake mining sub-district within the Grants Mining District in northwestern New Mexico. The settlement also provides approximately $45 million directly to the Navajo Nation in connection with the Shiprock uranium mill site.

A stakeholder group, comprised of EPA Region 6, EPA Region 9, New Mexico environmental and mining agencies, and Navajo Nation, formed to facilitate CERCLA site investigation and response work through communication, cooperation, and understanding of stakeholders with different cultural backgrounds. For example, the group is currently developing a mutual understanding of the role that traditional ecological knowledge has in the CERCLA process for these sites.

In August 2018, EPA's Inspector General released a report[5] that concluded EPA needs to finish prioritization and resource allocation methodologies for the Tronox Navajo Area Uranium Mines. Specifically, the Inspector General recommended EPA Region 6 and EPA Region 9 (1)

[5] https://www.epa.gov/sites/production/files/2018-08/documents/_epaoig_20180822-18-p-0233.pdf

fully develop and implement prioritization and resource allocation methodologies, and (2) complete the necessary removal site evaluations and engineering evaluations/cost analyses.

In June 2019, EPA fulfilled the first recommendation by completing the prioritization methodology. The Tronox prioritization methodology uses data collected during the removal site evaluation phase to score five risk factors: (1) radiation level above background; (2) potential migration to surface water; (3) potential impact to groundwater; (4) land-use scenario; and (5) accessibility. Once the five factors are scored, the mines will be grouped as high-risk, medium-risk, or low-risk to help guide cleanup decisions. Other factors, such as cost and feasibility of cleanup alternatives that are evaluated during the Engineering Evaluation/Cost Analysis phase, will also be included in the decision-making process. It is important to note that CERCLA is an iterative process where general information and environmental data is constantly being collected. The scoring factors may be refined as new information and data is reviewed to better define potential risks.

In August 2019, EPA completed the second commitment by releasing the Removal Site Evaluations that describe the nature and extent of the contamination for all of the Navajo Area Uranium Mines listed in the Tronox settlement. Removal Site Evaluations report out the findings of field work investigating contamination for each legacy mine site or groupings of sites where surface contamination is commingled.

Completing all the Removal Site Evaluations was a significant accomplishment due to the complexity of the field work. The mines vary in size and are located across various types of geographic terrain with varying degrees of geographic accessibility. EPA is using this site-specific information to evaluate and determine the potential costs for cleanup alternatives tailored to the conditions for each mine site or area of commingled contamination in the next step of the CERCLA process, the Engineering Evaluation and Cost Analysis. Once complete, the Engineering Evaluation and Cost Analysis Reports will be provided for public comment prior to selecting appropriate responses where needed for the mine sites. EPA will work closely with the Navajo Nation, New Mexico, stakeholders and impacted communities to obtain their comments on any potential cleanup proposal.

Assessment and Cleanup of AUM Sites

EPA, working with our tribal, state, and federal partners, has made additional strides in assessing and cleaning up AUMs. These accomplishments include:

- EPA and New Mexico identified 97 priority mines on private and federally managed land. Utilizing EPA's Airborne Spectral Photometric Environmental Collection Technology (ASPECT), EPA was able to identify mines with the highest exposure levels of radionuclides to help focus response resources.

- In 2011, EPA issued a cleanup plan for the removal of approximately one million cubic yards (CY) of mine waste from the North East Church Rock (NECR) mine site following extensive consultation with Navajo Nation and nearby communities. Concurrently, EPA and the responsible party conducted two large-scale interim cleanup actions to remove

130,000 CY of contaminated soil and addressed all known soil contamination remaining on the reservation from the adjacent NECR mine site. In 2018, United Nuclear Corporation/General Electric (UNC/GE) completed, and EPA approved, a design to place approximately one million CY of mine waste in a permanent repository on the former UNC Mill site within the State of New Mexico. Following completion of the design, UNC/GE submitted a license amendment request to NRC to allow mine waste from the NECR mine to be added to the existing disposal cell. NRC maintains regulatory oversight of the mill and must approve UNC/GE's request for a source materials license amendment. If NRC approves the license amendment request, UNC/GE would enter a consent decree with EPA and begin construction of the UNC waste repository.

Working with Communities, Federal Partners, and Local, State, and Tribal Governments

EPA will continue to work with our communities, tribal partners, and other stakeholders in assessing the impacts of uranium mining on Indian Country and other impacted regions. EPA Region 6 will release its third Five-Year Plan by the end of 2020. This Plan will be based on extensive discussions with our tribal partners, communities within the Grants Mining District, and representatives of state and federal agencies.

Similarly, EPA Region 9 and its partner agencies are currently developing a Ten-Year Plan that builds on the work of the 2008-2012 Five-Year Plan, the 2014-2018 Five-Year Plan, and the Tronox Addendum to the 2014-2018 Five-Year Plan. This Ten-Year Plan will make adjustments based on information gained during the previous Five-Year Plans and identify next steps needed to address the human health and the environmental risks associated with the legacy of uranium mining and milling on the Navajo Nation. We anticipate finalizing the Plan in early 2020.

These regional Plans will largely focus on:

- Completing negotiations with potentially responsible parties to conduct investigations of the groundwater and surface contamination in the San Mateo Creek Basin;

- Completing the investigation and cleanup of the over 200 AUMs in Navajo Nation for which EPA has secured funding through enforcement agreements and settlements;

- Conducting water studies in the Navajo Nation to assess if and to what extent AUMs have impacted surface water and/or groundwater;

- Continuing to conduct time-critical removal actions at sites found to pose an imminent and substantial endangerment to human health and the environment;

- Continuing to conduct radiological assessments at structures that meet program criteria to determine if there is a potential health risk to residents and implementing removal actions where contaminated structures and surrounding soils are found to pose a risk to residents;

- Continuing to look for additional sources of funding to initiate detailed assessments at the AUMs that are not presently funded through enforcement agreements or settlements. This may include partnering with other federal agencies, as well as pursuing further enforcement actions where viable potentially responsible parties exist;

- Continuing to involve the community and tribal leaders in the mine assessment and cleanup process to ensure that EPA understands community concerns and considers community goals in its decision-making process;

- Continuing to coordinate closely with tribal partners to ensure that tribal governments are consulted and Tribal Ecological Knowledge is incorporated in the CERCLA decision-making process.

Goal: Capacity Building

EPA's goal is to clean up AUMs in the Navajo Nation in a manner that supports capacity building and provides opportunities for Navajo Nation businesses and individuals to participate in the cleanup efforts. EPA has awarded over $10 million in grants to the Navajo EPA since 2008. Moreover, EPA has utilized unique evaluation factors that encourage training and employment opportunities for Navajo Nation businesses and individuals to evaluate responses to contract solicitations. This approach was used in the solicitation for EPA's Response, Assessment and Evaluation Services contract, which has $85 million in capacity and was awarded to Tetra Tech in October 2017. During Tetra Tech's first 18 months of performance, $768,080 in sub-contracting dollars have gone to Navajo Nation firms and 10,084 hours of labor were performed by Navajo Nation/American Indian employees.

Evaluation factors that encourage Navajo Nation capacity building were also used for EPA's Abandoned Mine Response and Construction Services (AMRCS) solicitation. The Request for Proposals (RFP) for the AMRCS solicitation was issued in April 2019 and responses to the solicitation are currently being reviewed. The contract capacity for AMRCS will be $220 million and EPA anticipates making multiple awards to small businesses (i.e., businesses with less than 750 employees).

EPA has also awarded three site-specific contracts for construction/remediation projects to Navajo Nation-owned small businesses for a total of approximately $5.8 million.

Capacity Building and the Quapaw Nation

EPA makes it a priority to work with tribes to ensure their direct involvement in the Superfund process. EPA has provided funding to the Quapaw Nation for over two decades to ensure their direct involvement in the investigation and selection of the remedy at the Tar Creek Superfund site in Oklahoma. This funding has allowed the Quapaw Nation to develop the technical capacity to provide input into decisions being made regarding the site.

Adding to this environmental experience, the Quapaw Nation utilized their construction expertise and applied for a grant to conduct the cleanup. EPA awarded the first-ever Superfund

construction grant to the Quapaw Nation in 2013 and continues to provide over $40 million to date to the Quapaw Nation to conduct cleanup work.

Utilizing this experience, and with the assistance of EPA's Indian Environmental General Assistance Program (GAP), the Quapaw Nation provided peer-to-peer assistance to the Pueblo of Laguna on issues related to developing capacity at the Pueblo that would allow the Pueblo to provide input into decisions being made regarding the Jackpile-Paguate Uranium Mine Superfund site. This included the Quapaw Nation's Environmental Department hosting representatives of the Pueblo on a visit to the Quapaw Nation and the Tar Creek site, as well as a visit by the Quapaw Nation Environmental Department to the Pueblo and the Jackpile-Paguate Uranium Mine site. EPA Region 6 will continue to support this peer-to-peer assistance in fiscal year 2020.

Conclusion

EPA remains firmly committed to protecting public health and the environment for American Indians and Alaska Natives, in collaboration with our federal and state agencies, and most importantly our tribal partners. Our collaborative planning process has led to tangible results on-the-ground and we look forward to our future progress. Thank you, and I am happy to answer any questions you may have.