

Benjamin H. Nuvamsa Chairman

Todd Honyaoma Sr. Vice Chairman

CHAIRMAN BEN NUVAMSA

SIGNED LETTER OF

SUPPORT: CONCURRENCE,

WHICH WITE ADDRESSED

WHICH WAY MAN ?

December 4, 2007

Honorable Henry A. Waxman, Chairman Committee on Oversight and Government Reform U.S. House of Representatives 2157 Rayburn House Office Building Washington, D.C. 20515

and

Honorable Tom Davis, Ranking Member Committee on Oversight and Government Reform U.S. House of Representatives 2348 Rayburn House Office Building Washington, D.C. 20515

Re: Health and Environmental Impacts of Uranium on the Hopi Tribe

Dear Chairman Waxman and Ranking Member Davis:

The Hopi Tribe has been following with great interest the efforts of the Committee on Oversight and Government Reform to address the adverse health and environmental impacts of uranium mining, processing and disposal on tribal lands. As was compellingly demonstrated by the testimony presented at the Committee's October

23rd Hearing on the Health and Environmental Impacts of Uranium in the Navajo Nation, the mining, processing and disposal of uranium at the direction and instruction of the United States Government as part of the United States' Cold War nuclear weapons program has severely impacted a vast amount of tribal lands and the surrounding tribal communities.

We have been told that the Committee has decided to focus in the first instance on Navajo lands and communities, and given the horrendous record of the United States government with respect to uranium activities on Navajo land, the Hopi Tribe understands the reasons for such an initial focus. However, we did want to bring to your attention the fact that the Hopi Tribe, which shares the same geographic region with the Navajo Nation and whose reservation is entirely surrounded by the Navajo reservation, is also being adversely affected by the legacy of uranium activity and federal government neglect. In particular, the Hopi Tribe has serious concerns about the conditions at and near the Tuba City, Arizona dump, one of the subjects of the October 23rd Hearing, which was built and operated by the Bureau of Indian Affairs on Hopi land and which has been contaminated and is threatening the Hopi's (and the Navajo's) scarce water resources.

The Hopi Tribe supports fully the Committee's efforts to ensure that the federal government meets its responsibility to address uranium contamination on tribal lands and to provide clean closure and remediation of contaminated areas. Specifically, the Hopi Tribe supports congressional reauthorization of the Department of Energy's ability to fund and perform cleanup of vicinity sites including the Tuba City dump under the Uranium Mill Tailings Radiation Control Act, 42 U.S.C. § 7901 et seq., ("UMTRCA").

The Hopi Tribe's support of reauthorization under UMTRCA is not meant to limit in any way the responsibility of the federal government to remediate the Tuba City dump under existing authorities, including the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") and the Resource Conservation and Recovery Act ("RCRA"). As the Committee heard at the October 23rd Hearing, the history of the federal government's action with respect to these issues is replete with neglect and inaction caused by bureaucratic squabbling and finger pointing within the federal government, with each agency acting as if resolving these contamination issues were some other agency's responsibilities, but not its own. Accordingly, the Hopi Tribe supports the Committee's efforts to convene the various responsible federal agencies to address and resolve these matters expeditiously and comprehensively.

The Hopi Tribe is submitting this letter to provide the Committee with factual background information relevant to the Committee's investigation. We would welcome the opportunity to meet with the Committee to discuss these issues further, to provide witnesses to testify should the Committee hold additional hearings on this subject, and to provide whatever additional information the Committee would find helpful to its work. As the Committee works to facilitate, at long last, a process to address these pressing issues, the Hopi Tribe would like to be a constructive part of that process and requests the opportunity to be such a participant.

The Tuba City Dump

The Bureau of Indian Affairs built the Tuba City dump in the late 1950s and has operated it for 50 years. Although often called a "landfill," this dump bears no resemblance to any sort of modern landfill. Wastes of all kind were randomly dumped on the ground surface and in the large trenches that BIA excavated. BIA mostly "operated" the dump through inaction, and with little active management. There were no restrictions on who used the dump, what could be dumped, or how it was dumped. The dump was constantly on fire. Not only household wastes but commercial wastes and medical wastes from a wide geographic area were dumped here. And, as discussed below, available evidence demonstrates that uranium wastes from the nearby uranium mill were also dumped here.

The 30-acre dump is unlined and lies directly on top of and in some areas extends below the surface of the "N-Aquifer," the Hopi Tribe's most vital water resource and an indispensable part of its cultural heritage. Waste trenches at the Tuba City dump are in contact with the N-aquifer water table at a depth of only 10 feet below ground surface. The dump is located approximately one mile east of the Hopi Villages of Upper and Lower Moenkopi, Arizona and the Navajo town of Tuba City, Arizona. During the majority of the dump's operation, the dump was located on disputed land then under the jurisdiction of the Navajo Nation. As a result of the 1974 Navajo-Hopi Land Dispute Settlement Act, most of the property on which the dump is located came under Hopi jurisdiction in the early 1990s. Thus, the dump (with the exception of a two-acre portion at the northern edge that extends onto Navajo Nation lands) is located on Hopi Tribal lands.

As the Committee is aware, a former uranium processing mill, called the Tuba City Mill, operated from 1956 to 1966 three miles northeast of the dump. It was operated by El Paso Natural Gas and its predecessor, Rare Metals of America, under contract with

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the Atomic Energy Commission. The results of several extensive investigations persuasively demonstrate that the Tuba City dump was likely used for disposal of uranium and other radioactive wastes generated by the nearby Tuba City Mill.

The BIA Navajo Area Office planned for closure of the dump between 1993 and 1997 and commissioned the Landfill Closure Plan and Cost Study, prepared by iina' ba', Ltd. This plan and study, however, failed to address the entire dump site and did not include a groundwater quality investigation. In response, the Hopi Tribe and the Tribe's Upper and Lower Villages of Moenkopi initiated efforts to conduct a thorough site investigation addressing the entire dump site, including groundwater contamination beneath and surrounding the site. In August 1997, the dump was closed to further disposal and BIA and its contractor began site cleanup activities to consolidate and cover exposed waste at the dump.

Contamination of Water Resources

The Hopi Villages of Upper and Lower Moenkopi rely exclusively on the Naquifer for their limited drinking water supplies. Three water supply wells located approximately 4,000 feet west of the dump provide water for the public water supply system that serves the Upper Village. The Lower Village obtains water from a spring located approximately 7,000 feet southwest of the dump, which feeds a public water supply distribution system in the Lower Village. Several investigations of the dump, including ongoing groundwater monitoring conducted both by the Hopi Tribe and the Navajo Nation Environmental Protection Agency, have revealed significant contamination of the upper zone of the N-aquifer located adjacent to and in the vicinity of the dump.

Groundwater sampling and analyses show contaminant concentrations that exceed—in some cases by as much as 10 times—the U.S. Environmental Protection Agency maximum contamination levels ("MCLs") for safe drinking water for the following constituents: uranium, arsenic, chromium, nitrate, selenium, radium-226/228, and gross alpha and beta activity. Groundwater sampling conducted by the Hopi Tribe's consultant identified a contaminant plume in the N-aquifer resulting from dump leachate. This plume includes uranium and other elevated inorganic contaminants. The groundwater contaminant plume has migrated over 4,000 feet downgradient from the

dump, where groundwater exceeding the uranium MCL is now within 2,600 feet of the spring and supply wells.

Groundwater contamination has also been discovered at the Tuba City Mill, which has been investigated by DOE and where a groundwater remediation system currently operates. The types and concentrations of contaminants found at the Tuba City dump are very similar to those found in groundwater at the Tuba City Mill, suggesting that the waste from the former uranium mill is the source of groundwater contamination and likely was disposed of at the Tuba City dump in the past. According to a Scope of Work prepared for BIA for 2008 planned activities,

[s]tatistical comparison and isotopic analyses of several contaminants, particularly uranium, detected in monitoring wells relative to local rock, sediment and water, and the rock and sediment of uranium-rich Chinle formation west of Moenkopi, indicate the shallow groundwater contaminant signature observed at the Landfill is not indicative of the Moenkopi area, but shows similarities with the Chinle Formation. The Chinle Formation has been heavily mined for uranium, and provided ore to nearby processing mills. Furthermore, groundwater data for molybdenum, selenium, vanadium, sulfate and chloride support that shallow groundwater contamination in the Landfill may be attributed to the presence of mill tailings and or processing wastes which may have been disposed of in one or both the Landfill cells.

The 2006 United States Geological Survey's "Preliminary geochemical analyses of rock, sediment, and ground water from the Tuba City Landfill and surrounding areas," conducted in cooperation with BIA, also indicated that "uranium concentrations in the landfill ground water is above background levels" and that "the source appears to be closely related to material that was derived from the Chinle Formation, which is known to be a source of ores processed at the nearby RARE Metals mill." Additionally, a 2005 Geochemical Forensics Investigation of the Tuba City Landfill conducted by Daniel B. Stephens & Associates, Inc. for the Hopi Tribe provided "clear evidence that the groundwater contaminant impacts observed at the [Tuba City dump] result from waste disposal in the landfill, not from naturally occurring mineralization at this location in the N-aquifer." The investigation determined that the most probable source of uranium contamination at the Tuba City dump was waste material associated with uranium ore processing that has been disposed of in the dump.

The results of groundwater sampling conducted to date indicate that groundwater contamination in the upper, shallow portion of the N-aquifer threatens springs from which the Lower Village draws its drinking water and irrigates crops. Groundwater contaminants have not yet impacted the deeper portion of the N-aquifer beneath the dump. However, the scientists who have analyzed the available data have concluded that the contaminated groundwater plume emanating from the dump presents an imminent danger to the deeper portions of the aquifer, from which the Upper Village wells draw drinking water, because there is no formational barrier to flow of groundwater between the shallow and deep portions of the aquifer.

Moreover, the Tuba City dump is and has been for years in violation of federal regulations under the Resource Conservation and Recovery Act, which regulations require that landfill sites be closed so as to meet EPA's maximum contaminant levels for drinking water at the waste management unit boundary. The Tuba City dump fails to meet a whole array of MCLs at the compliance point, including for uranium.

Clean Closure and Remediation of Groundwater Necessary

Contamination from the dump and other sources severely limits the Hopi's access to potable water from the N-aquifer. As the Hopi Villages of Upper and Lower Moenkopi rely exclusively on the N-aquifer for drinking water, clean closure of the dump with off-site waste disposal and proper remediation of the contaminated groundwater is of paramount importance. Clean closure would be accomplished through the excavation of all waste at the dump and shipment of the waste to a suitable and properly permitted off-site landfill.² Clean closure of the dump presents several distinct and crucial advantages over other remedial alternatives, including:

¹ See 40 C.F.R. pt. 258.

² A 1999 Landfill Closure Site Investigation and Engineering Assessment prepared by Daniel B. Stephens & Associates, Inc. for the Hopi Tribe also discussed in-place closure (involving construction of a final cover) and on-site closure (involving construction of a lined landfill disposal cell in the existing dump area for disposal of excavated waste). Because contaminated shallow groundwater and leachate were discovered during this investigation, the Assessment concluded that the in-place closure option was technically infeasible and would provide inadequate protection of the water resources.

- Waste is removed from the dump site, eliminating future concerns of potential contamination.
- N-aquifer groundwater is protected by removing waste presently in contact with the water table.
- Long-term monitoring and maintenance are minimized.
- The dump site is restored to pre-dump conditions.
- The land is available for unrestricted future use.
- The waste is disposed of in a permitted landfill that protects public health and the environment.

Consultants for the Hopi Tribe have preliminarily estimated that the cost to complete clean closure of the dump would be approximately \$ 33 million. This estimate is subject to further ongoing analysis including with respect to the cost to remediate groundwater.

The area of land containing and surrounding the Tuba City dump is hydraulically upgradient from the Villages' sacred ceremonial springs (which are the surface outflows of N-aquifer waters), the Villages' wells, and the Villages' traditional croplands. Daily cultural activities of the Hopi are dependent on the harvesting of plants and herbs for the preparation of many Hopi foods and the observance of religious activities and obligations. Local animal life, both wild and domesticated, is associated with important cultural and religious activities and is fundamental to the well-being of Hopi clan families (extended families). All of these natural resources and cultural activities depend on clean reliable water sources, which are currently threatened by the contaminant plume extending downgradient from the dump.

³ Clean closure with off-site disposal is also necessary because the Hopi are geographically constrained in this area and need the land occupied currently by the dump for local municipal uses. For example, the Upper Village is unable to expand in any direction as it is bounded on all sides by the Navajo Nation, the dump, and land belonging to the Lower Village.

Through a voluntary mediation process, the Hopi Tribe, the Navajo Nation, BIA, and EPA have worked to find an acceptable method for closing the Tuba City Landfill and addressing its attendant risks. The parties have presented various views, discussed the available data, and considered the available options, while recognizing the urgency of reaching a consensus for a site that is in violation of federal regulations. For environmental, economic, and cultural reasons, in solidarity with the Navajo Nation, the Hopi Tribe strongly supports a clean closure of the Tuba City dump and believes that clean closure should be completed as quickly as possible in order to eliminate any potential threat of contaminated groundwater adversely affecting the health, economy, or cultural resources of the Hopi Tribe. In addition to removing the waste materials, a groundwater remediation system will be necessary to remove the uranium and other constituents and restore water quality in the shallow N-aquifer downgradient of the dump.

Although the need and urgency for a cleanup of the Tuba City dump has been demonstrated repeatedly for over 10 years, no cleanup action has been taken. This site is another example of the federal government's inclination to want study upon study, while cleanup action is stalled and delayed. In fact, BIA has just recently begun an effort to start a CERCLA remedial investigation and feasibility study process, which would (i) take years to complete, (ii) unnecessarily duplicate the investigation that has already been conducted and (iii) continue to stall the much needed closure and cleanup of the dump. With the contaminant plume moving closer by the day to Hopi water supplies, the Hopi Tribe seeks action now--not further duplicative studies.

Current Litigation and Need for Reauthorization under UMTRCA

El Paso Natural Gas Company, the former operator of the Tuba City Mill, has brought suit against the DOE, the United States Nuclear Regulatory Commission, EPA, the United States Department of Interior, BIA, the United States Department of Health and Human Services, the Indian Health Service and the United States Department of Defense. The gravamen of EPNG's complaint relates to "DOE's decision not to designate certain sites containing residual radioactive materials from the Tuba City Uranium Mill ... as 'vicinity properties' pursuant to" UMTRCA, including the Tuba City Landfill. Pursuant to DOE Cooperative Agreement Number DE-FC04-85AL26731, DOE is responsible to identify and remediate "vicinity properties" of the Tuba City Mill. Moreover, under the Cooperative Agreement, DOE is required to pay for all costs it incurs in performing remedial actions. DOE's authority to perform remedial activities under UMTRCA, with the exception of groundwater restoration activities, terminated on

September 30, 1998 and DOE has not sought reauthorization under that Act. 42 U.S.C. § 7922(a).

During the Committee's October 23rd Hearing, David Geiser, Deputy Director of the Office of Legacy Management at DOE acknowledged that the radioactive material in properties around the Tuba City Mill "probably" came from the Mill. However, Mr. Geiser indicated that DOE was unable to remediate those vicinity properties because its authority had expired under UMTRCA. Mr. Geiser also stated that DOE has the capability to remediate such vicinity properties and was prepared to work with Congress should it reauthorize DOE to do the work. Moreover, during the Hearing, Jerry Gidner, Director of BIA, acknowledged that the radioactive material in the dump came from waste generated by the nearby Tuba City Mill.

In other words, (i) the Tuba City dump is located on Hopi Tribal lands, (ii) it was built and operated by BIA, (iii) it is contaminated with uranium which the available evidence indicates came from the Tuba City Mill, which processed uranium for the benefit of the federal government, (iv) BIA acknowledges that the uranium contamination at the dump likely came from the Tuba City Mill, (v) DOE has the capability to close and remediate vicinity properties such as the Landfill, (vi) but DOE lacks the legal authority to close the Landfill because of the expiration of its UMTCRA authority. Accordingly, the Hopi Tribe supports Congressional reauthorization of UMTRCA so as to allow DOE to close and properly remediate vicinity properties, including the Tuba City dump. This will be an important step in ensuring that the appropriate party — the federal government — takes responsibility for remediating the contamination of Hopi Tribal lands.

Even in the absence of the reauthorization of UMTRCA, the federal government has ample authority to remediate the Tuba City dump. For example, the dump could certainly be addressed by the responsible federal agencies under CERCLA, as there are clearly releases of hazardous substances taking place, and both BIA and DOE, and perhaps other federal agencies, have liability under Section 107 of CERCLA to remediate such releases. And EPA could order immediate cleanup of the site under the endangerment provisions of Section 106 of CERCLA or Section 7003 of RCRA. In fact, we find it difficult to believe that if the drinking water supplies of wealthy communities outside of Indian country were being similarly threatened by uranium and other hazardous substances, EPA would not already have ordered or taken response action.

Whichever authorities the federal government uses, what is important is that the focus of this effort switch immediately from study to action. There has been more than

enough study. We know what the problem is at the Tuba City dump, we know who caused it and we know how to fix it. That fix should not be contingent on years more of study and finger pointing. Further delay only heightens the peril of the Hopi Tribe and Navajo Nation.

Again, the Hopi Tribe applauds the Committee's efforts to ensure that the federal government fulfills its commitments and obligations to address uranium contamination on tribal lands. We hope those efforts will soon bear fruit in addressing this vitally important issue, and the Hopi Tribe is committed to working with the Committee to achieve an appropriate and protective resolution.

Sincerely,

Nada Talayumptewa,

Chair Hopi Energy Team,

Hopi Tribal Council

The Hopi Tribe

Eugene Kaye,

Chair Hopi Water Team,

Hopi Tribal Council

The Hopi Tribe