

Lessons Learned: Tribal Community Engagement, Remediation and Restoration of a Uranium Mine Tailings Site, Navajo Nation - 12484

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ABSTRACT

In May, 2011 New World Environmental Inc. was awarded a contract by the Navajo Nation Environmental Protection Agency to remediate an illegal radioactive waste disposal site located in the Navajo Nation. The initial scope included the excavation and shipment of an estimated 3,000 cubic yards of Uranium mine tailings and associated industrial waste. In this instance Stakeholders were supportive of the project, remediation and restoration, yet the movement of residual radioactive materials through tribal communities was a controversial issue. Other Stakeholder issues included site security, water sources for remediation activities, local residents' temporary re-location and care of livestock, right of way permissions and local workforce development. This presentation recaps the technical and non-technical issues encountered in the remediation and restoration the seven acre site and the outreach to surrounding communities. Cultural and equity issues resulting from historical problems associated with this and other sites in the immediate area and education and training.

INTRODUCTION

From the Manhattan Project during World War Two until 1986 mine operators extracted nearly four million tons of uranium ore under lease agreements with the Navajo Nation. This has left the Navajo Nation with a legacy of over 500 abandon uranium mines, four inactive uranium milling sites, a former dump site, contaminated ground water, structures that contain radioactive materials, and environmental and public health effects.



Figure 1. Site 160 Project, Aerial View Looking West

In June 2003 the Navajo Nation EPA (NNEPA) learned that dumping of uranium mill materials occurred in the vicinity of the current Tuba City Disposal Site, a Uranium Mill Tailings Radiation Control Act (“UMTRCA”) site historically known as the Rare Metals Uranium Mill. This became known as the Highway 160 Project Site and is south of Arizona Highway 160, adjacent to milepost marker 327.

In May 2004, the U.S. Environmental Protection Agency (“EPA”) came to the site and conducted a cursory, non-intrusive survey of the location, which included a radiological and soil analysis.

After a significant lobbying and testimony at congressional hearings by the Navajo Nation; in 2009, Congress appropriated funds specifically designated for the clean-up of the Highway 160 site. This would be the first time the Navajo Nation would direct cleanup of a mine tailings site.

In May, 2011 New World Environmental Inc. was awarded a contract by the Navajo Nation Environmental Protection Agency to remediate the Highway 160 Project Site which is located approximately six miles northeast of Tuba City Arizona on the North side of

Arizona Highway 160. Immediately south of the Highway 160 Project Site is Rare Metals Uranium Mill Processing Site. The milling facility is now referred to as the Uranium Mill Tailings Radiation Control Action site or Tuba City Disposal Site is under the U. S. Department of Energy for groundwater remediation. The Highway 160 Project site is on land that is within a Navajo families’ customary use area – administered by the Bureau of Indian Affairs customary land-use permitting system.

One family has resided in the area prior to the Rare Metals Uranium Mill Processing Site. The site was identified in 2003 as an illegal disposal and burial site by the Navajo Nation Environmental Protection Agency (NNEPA) by local residents who lived on the site in the late 1950’s and early 1960’s. These residents related to the NNEPA that this site received waste materials from Rare Metals Mill Site during its operational period.

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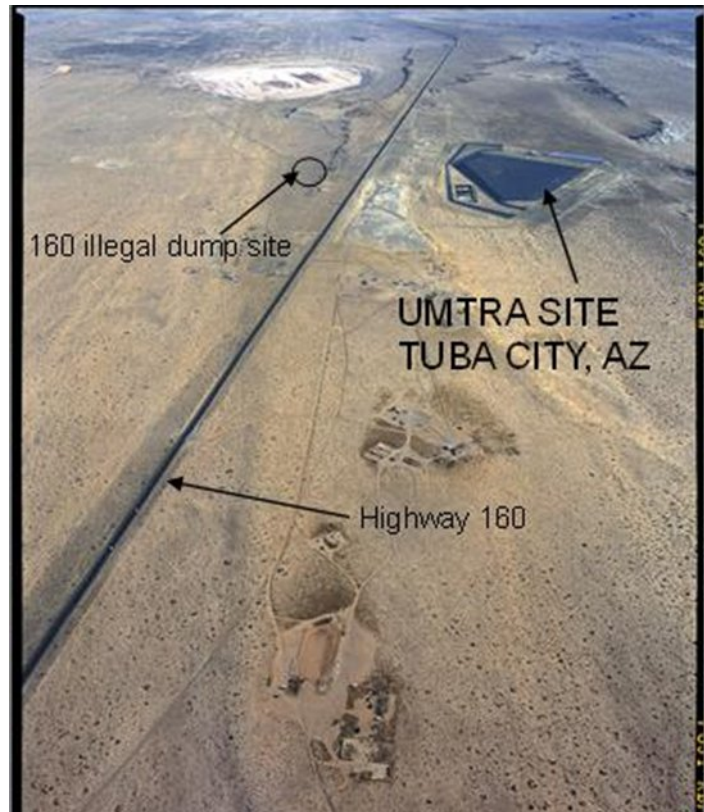


Figure 2. Highway 160 Project Site Aerial View Looking East

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COMMUNITY OUTREACH

NWE is a Native American owned environmental services firm with a strong health physics background. Throughout our 23 years we have performed radiological and mixed waste characterization, decontamination and decommissioning operations all over the world. This would be our first Tribal Nation client performing work on sovereign lands. In this instance we have some insight into this particular culture as one of the NWE owners has strong family ties with the Navajo Nation. From the beginning of the project we worked to include the community of both the Navajo and Hopi people by not only public notices and meetings, but also by actively recruiting our workforce from the local communities.

We adhere to Federal Indian Preference Policy, and preference in filling vacancies is given to qualified Indian candidates in accordance with the Indian Preference Act of 1934 (Title 25, USC. §472 and §473)

NWE also followed the Navajo Preference in Employment per 5 NNC 300-319, Per 5 NNC, Title 15, Chapter 7, was enacted to expand and to protect employment and training opportunities for Navajo workers within the Navajo Nation.

NWE HR began outreach for local Navajo/Hopi hiring by placing an advertisement soliciting resumes for positions on the Highway 160 project. We were extremely pleased with the level of expertise and training that the potential candidates exhibited in response to our advertisement. We also were fortunate to have Cassandra Bloedel, project manager for the site from NNEPA, conduct informal outreach to local residents in Tuba City to inform them potential hiring opportunities for the project.

NWE HR began processing personnel on site and coordination of local hires.

Every effort was made to utilize qualified local residents and members of the Navajo/Hopi Nation when staffing open positions for this project. Guide lines for hiring preference are listed below:

1. Navajo/Hopi applicants
2. Local residents
 - a. All others

Candidates that qualify as radiological workers (in accordance with ANSI/ANS -3.1-1993, and NWE policy) shall be given hiring preference and will be employed as RAD workers upon successful completion of site specific Radiation Worker Training and Testing. (*Exception: Candidate(s) that can prove industry accepted training (e.g. CHP, degreed Physicist, RCT,*

etc.), experience, and demonstrate competent efficiency with site specific instrumentation and equipment may have the testing requirement waived by NWE PM).

Qualified applicants for Non-Radiological skilled positions (e.g. heavy equipment operator, traffic control, etc.) shall be given preference upon proof of experience (e.g. formal training, certification, resume, etc.) and practical demonstration of skills.

Qualified applicants (physically and mentally capable of performing the required work on a Hazardous site) for Non-skilled positions (e.g. security, laborer, etc.) shall be given preference.

It must be remembered that this is a hazardous (Radiological) work site and in accordance with the NWE NRC license and procedures, every effort must be taken to safeguard and protect personnel, residents, and the environment. While every effort will be made to utilize the personnel and resources available in the local area, these efforts must not dilute the technical level of expertise, or compromise the safeguards required for this project.

Sub-contractor (Rock Gap) adheres to Federal Indian Preference Policy, and preference in filling vacancies is given to qualified Indian candidates in accordance with the Indian Preference Act of 1934 (Title 25, USC. §472 and §473)

Public Notices for Transportation

In accordance with the Navajo Nation EPA guidance and input, NWE prepared and distributed public notices of transportation detailing the shipment schedule and route of the radioactive material removed from Highway 160 and shipped to the GJDS.

Public Outreach Meetings to local Tribal Community

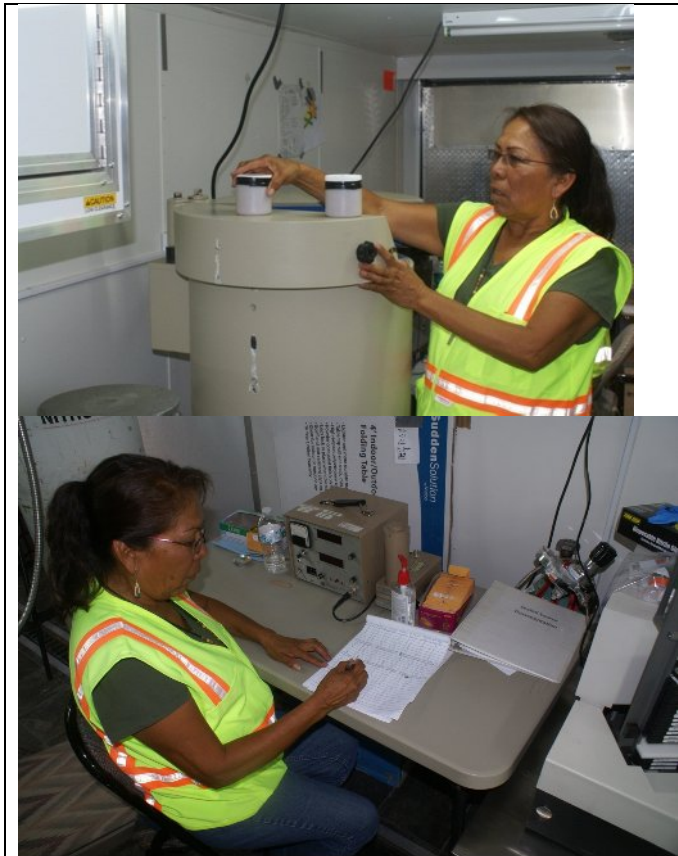
NEW participated in local Tuba City Chapter meetings for local Navajo residents to meet NWE staff and receive NWE's update on activities on site and field questions and concerns regarding the project. NWE also presented their capabilities presentation and qualifications as a presentation to the Tuba City Chapter of Navajo Nation to establish trust and assurance that NWE was a highly qualified Native firm with a proven track record and would be able to perform the work with the assurance that the community safety was of the highest concern.



Local Hire Training OTJ



Local Hire Training: 16 Hour Rad safety



On site laboratory Assistant for HPGe gamma spectroscopy sample processing.



Processing air and wipe samples on Protean gas proportional system.

RESULTS

Through the life of the project we were staffed at no less than 50% Native hire

We Developed an Excellent relation with Tribal government and local Chapter

We provided valuable classroom training and additional on the job experience



DISCUSSION