Navajo UMTRA Program
Site Activities

Navajo Uranium Contamination Stakeholder Workshop, Gallup, New Mexico
November 3 – 5, 2009
Background & History

- November 1973, Navajo Tribal Chairman asked US EPA to assist with stabilizing the tailings pile & develop decontamination procedures for the Shiprock site.

- April 1974, US EPA & other federal agencies implemented measures for preliminary radiation surveys necessary to determine the extent of the surface contamination near the Shiprock tailings pile & existing buildings.

- January 1975, a decontamination / training program was implemented at Shiprock with NECA under US EPA-ORP guidance.

- November 8, 1978, UMTRCA PL 95-604 became effective.

- Cooperative agreement between DOE & the Navajo Nation was established that outline monitoring applications at the four Navajo sites located at Shiprock, Mexican Hat, Monument Valley and Tuba City.
UMTRA Site Characterization

- Engineering Assessment by Ford, Bacon and Davis was performed
- Aerial radiological surveys were performed by EG&G Energy Measurements Group to identify surface anomalies
- Mobile gamma-ray scans performed by Oak Ridge National Laboratory confirmed initial anomalies
- Bendix Field Engineering Corporation performed radiological surveys of tailings & adjacent areas
- Argonne National Laboratory conducted detailed surface and subsurface investigations that identified residential / commercial areas as Vicinity Properties (VP)
Surface Remediation

- Remediation involved the placement of the mill tailings materials into an engineered design disposal cell and capped.
- All identified VP materials were also placed into the disposal cell.
- Monument Valley tailings material was transported to the Mexican Hat site for disposal.
- Remediation was completed at all four Navajo sites by 1994.
Surface Remediation, cont.

- The Shiprock, Mexican Hat and Tuba City sites have been transferred to the DOE’s Long Term Surveillance and Maintenance Program.
- Annual LTSM inspection for these sites are conducted with the DOE.
- Navajo UMTRA performs quarterly site visits in support of the annual inspection.
- No further action was required for the Mexican Hat site but due to potential exposure from ground water seeps prompt quarterly inspections.
**Ground Water Remedial Activities**

- Ground water remediation ongoing at the Shiprock, Monument Valley and Tuba City sites
- Technical review of DOE site documents (water validation packages, site inspection reports, treatment system performance reports, alternative treatment technologies) for the Navajo UMTRA sites
- Coordinate with Water Code Administration in the review & approval process for well applications & water use permits for the Navajo UMTRA sites
- Participate in ground water environmental sampling activities at the SR, MV, and TC UMTRA sites
Remedial Activities, cont.

- Participate in sampling events for analysis of plant tissue, soil and subsurface water measurement related to phytoremediation activities at the MV UMTRA site.
- Coordinate ongoing uranium contamination assessment in monitoring wells with DOE at the MV UMTRA site.
- Perform weekly ground water remediation monitoring inspections at the Shiprock site.
- Perform annual radon and gamma (γ) radiation integrity assessment of the Shiprock disposal cell.
Remedial Activities, cont.

- Provide technical & administrative assistance to Navajo EPA concerning the installation of nine ground water monitoring wells near the Tuba City UMTRA site.
- Maintain public relations with individual Navajo families & communities impacted by UMTRA surface and ground water remedial activities.
- Maintain communications & public outreach activities with tribal, state, and federal agencies concerning past & current UMTRA site related activities.
Contact Information

- Website Address:
  - www.aml.navajo.org
  - www.lm.doe.gov