

# Navajo UMTRA Program Site Activities

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

# Background & History

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- ❑ 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 to 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

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- 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

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- ❑ 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.

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- ❑ 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

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- ❑ 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.

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- 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 ( $\gamma$ ) radiation integrity assessment of the Shiprock disposal cell



# Remedial Activities, cont.

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- ❑ 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

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