

North East Church Rock (NERC) Mine Gallup, McKinley County, New Mexico

Topography/Geology

- Site is located in the San Juan Hydrologic Basin
- Surrounding cliffs comprise coarse grained sandstone from the Dalton Sandstone Member of the Crevasses Canyon formation. NECR Mine is elevated in a canyon at 7100 – 7200 ft.
- Two mine shafts NECR 1 and NECR2 each approximately 1800 ft deep.
- Surface area of the NECR 1 and NECR 2 mine shafts are 13.6 and 3.9 acres respectively
- Uranium ore bearing zone is the Westwater Canyon Member of the Morrison formation

Regulatory History

- April 19, 1974. New Mexico becomes an Agreement State licensing authority granted by the US Atomic Energy Commission.
- 1974. *Design of Tailings Disposal System – September 1974*
 - Contingency included in mill design that after the 3rd year of UNC Mill operations 50% of the tailings would be retained in the No. 200 sieve, recovered from tailings for use in the 'mine' for backfilling.
- During mine operations various permits & license were issued.
 - NPDES Permit issued by NMEID authorizing discharge of treated mine water.
 - Radioactive Materials License NM-UNC-ML-1 thru 18 issued by NMEID for Church Rock Mill Site
 - May 23, 1986. NRC issued Order CLI-86-10 to the State of New Mexico based on the Governor's request to return licensing authority for the ; 1) extraction and concentration of source material from source material ore; and 2), the management and disposal of the resulting by-product material as defined by Section 11e.2 of the Atomic Energy Act 1954.
 - On June 1, 1986, licensing authority was returned to the NRC
 - NRC Source Material License SUA-1475 first issued January 1987 for the Church Rock Mill Site occasionally referenced off-site activities at the NECR mine Site

Tailings Backfill Activities

- For over four (4 yrs), by-product material from UNC's Mill tailings were pumped underground into mines stopes and staged at eight (8) locations.
- Between January 1979 – January 1983, 11e.2 backfilling occurred at Mine
 - January 29, 1979, NMEID approved backfilling of tailings coarse sand transferred from UNC Church Rock Mill for use at two mines – NECR Mine and Old Church Rock Mine.*
 - State re-authorized backfilling activity until June 30, 1980 (1 year).
 - State extended authorization for UNC to continue backfilling until January 31, 1981 (1 more year, contingent upon submittal of an application for the discharge plan and mill license amendment)
 - State extended authorization for UNC to backfill until June 15, 1981 (6 more months - pending justification for renewal request)
 - June 15, 1981, State denied UNC's request to increase quantities of by-product material from 10,000 tons/month to 84,000 tons monthly for backfilling at the NECR Mine due to conflicting information pertaining to planned amounts slated for backfilling.
 - State extended authorization for UNC to backfill until January 31, 1983 (1 more year)
- *UNC letter to NMEID – January 12, 1979.*
 - Urgent request to State requesting immediate placement of mill tailings in NECR Mine to support ore pillars.
- *UNC letter to NMEID – January 19, 1979.*
 - UNC requested to permit backfilling portions of NECR Mine without an approved discharge plan for a period of 120 days.

NECR Mine Site Ownership history

- NECR Mine site includes Sections 3, Sections 34 and 35.
 - However the boundary of the *mine permit area* is an irregular shaped section carved out across the landscape of both Sections 34 and 35.
 - *Mine permit area* comprises 125 acres.
 - UNC operated most of the mine permit area from 1967 until 1982 under a mineral lease
- Mixture of private, and tribal trust and government ownership that includes Sections 3, 34 and 35.

Section 3 Section 34 – Solely Tribal Trust Land

- Managed by the Bureau of Indian Affairs

Section 34 – Includes Tribal Trust + Public Domain Lands + Privately owned Patented Land

- A portion of this land is Tribal Trust land for the Navajo Nation that is managed by BIA
- A portion of Section 34 is privately owned by UNC that includes a few vent holes and a portion of the boneyard area that are part of the *mine permit area*.
- The remaining portion of Section 34 to the west of mine permit area is controlled by the Bureau of Land Management that is used for grazing and potentially for mining.
- In totality this Section 34 is managed by Bureau of Indian Affairs, Bureau of Land Management & UNC

Section 35 - Solely Tribal Trust Land

- Section 35 comprises the majority of the *mine permit area* that includes vent holes, the two mine shafts (NECR 1 and 2), sediment pads and sand fill ponds.
- Majority of the *mine permit area* lies within Navajo tribal trust lands in Section 35. Surface portion of the NECR Mine site mineral estate is owned by the United States government held in trust for the Navajo Nation by the Bureau of Indian Affairs – Eastern Agency Navajo Nation.
- Section 35 is managed by the Bureau of Indian Affairs,