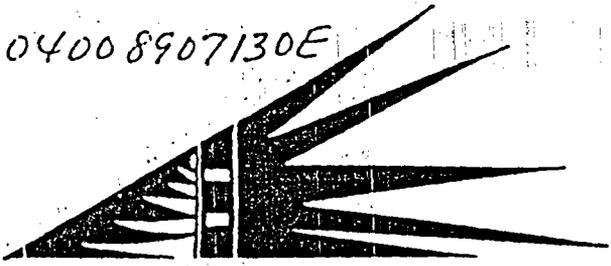


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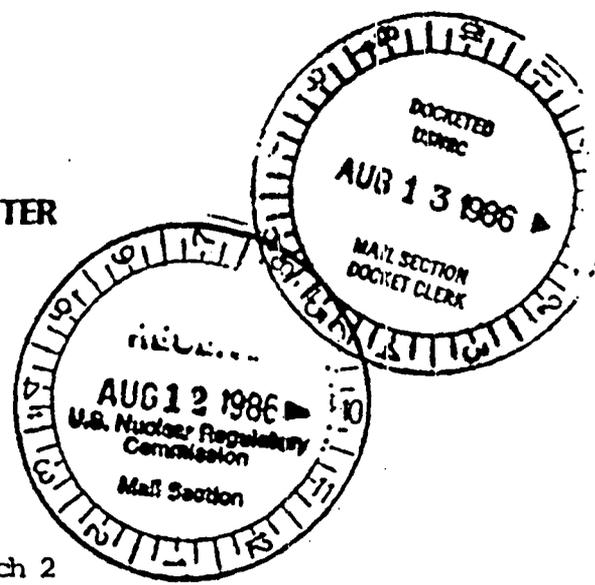


**SOUTHWEST RESEARCH AND INFORMATION CENTER**

August 11, 1986

HAND DELIVERED

Mr. R. Dale Smith, Director  
Mr. Harry J. Pettengill, Chief, Licensing Branch 2  
Mr. Pete Garcia, Licensing Officer  
Uranium Recovery Field Office  
U.S. Nuclear Regulatory Commission  
P.O. Box 25325  
Denver, CO 80225



Re: Radioactive Materials License  
for UNC Mining and Milling Div.,  
Church Rock, New Mexico —  
(N.M.) Lic. #NM-UNC-ML-17

Dear Sirs:

The purpose of this letter is to request that the U.S. Nuclear Regulatory Commission take administrative actions to amend the license of a New Mexico uranium mill operator to allow the operator to proceed with interim stabilization and reclamation measures. Southwest Research and Information (SRIC), a nonprofit education and scientific organization, proposes that such interim stabilization and reclamation measures be limited to the construction and operation of double-lined evaporation ponds and dewatering of the existing tailings disposal facility. The background for this request, and its bases, are described below.

Attached you will find a copy of SRIC's comments to the New Mexico Environmental Improvement Division (NMEID) on the proposed renewal of a state ground water discharge permit (DP-146) for uranium mill wastewater disposal facilities at UNC Mining and Milling Division's (UNC) Church Rock uranium mill. The permit in question allows the use of three lined evaporation ponds in the southwest one-quarter of the licensee's property in Section 2, T16N, R16W, McKinley County, New Mexico. As stated in SRIC's comments to NMEID, the licensee chose not to construct the ponds since they were first approved by the NMEID Director on June 17, 1981. SRIC's comments to the state request that NMEID:

\* approve renewal of the discharge plan for a period not to exceed two

**DESIGNATED ORIGINAL**

Certified By Mary C. Hood

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- \* condition renewal of the plan to require notification by UNC of its intent to construct three new lined evaporation ponds prior to their actual construction;
- \* inform the company that the ponds will be required to meet applicable federal standards for the protection of ground water;
- \* inform various interested parties of the NMEID director's decision to approve or deny the proposed discharge plan, and of any public comments regarding the plan; and
- \* work with the NRC to facilitate the approval of the ponds to permit their use in dewatering the tailings pile.

In this regard, SRIC requests that the NRC take the following administrative actions — pursuant to its general licensing authorities under the Atomic Energy Act (AEA) of 1954, as amended by the Uranium Mill Tailings Radiation Control Act (UMTRCA) of 1978, as amended — related to UNC's source material and byproduct material license:

1. Approve an amendment to UNC's license that would allow the company to construct new on-site evaporation ponds that —
  - a. comply with the standards of 40 CFR 192 Subpart D (40 CFR 192.32(a)), and
  - b. would be used exclusively for the purpose of receiving fluids pumped from a series of ground water recovery wells located in Section 36, T17N, R16W, McKinley County, N.M., approximately .25 miles north of the existing tailings facility in Section 2, T16N, R16W.
2. Condition approval of such a license amendment to allow for construction prior to NRC approval of a final reclamation plan for the entire tailings site.
3. Work directly with NMEID's director and ground water staff to ensure that the design of the ponds and their operation and monitoring conform to applicable state and federal regulations, including those of the New Mexico Water Quality Control Commission ("NMWQCC") and the U.S. Environmental Protection Agency ("EPA").

In the attached letter to Ms. Denise Fort, NMEID director, SRIC outlined several practical reasons why NRC and NMEID should require, or at least facilitate, UNC's dewatering of its tailings as an interim step toward ground water remediation and tailings reclamation. To review, those reasons are:

- \* dewatering of the tailings is an integral component of uranium mill tailings reclamation techniques and will be necessary at the UNC site whenever final reclamation takes place;

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- \* water quality data developed by the licensee, NMEID, and the EPA through its CERCLA (Comprehensive Environmental Response, Compensation and Liability Act) activities at the site show that three distinct aquifers underlying and outside of the tailings impoundment are contaminated with concentrations of total dissolved solids, sulfates, nitrates, arsenic, and pH that exceed primary and secondary federal drinking water standards and state ground water standards at many of the more than 250 site monitoring wells, including in monitoring wells located outside of UNC's property on Indian allotted lands;
- \* pumping of a series of recovery wells north of the tailings impoundment and neutralization of process liquids stored in unlined borrow pits at the site appear to have reduced concentrations of some pollutants over the past four to five years;
- \* while partially effective, the existing pumpback system is not a permanent solution to the ground water contamination at the site; rather, it is designed only to control the further spread of pollutants; and
- \* construction of the proposed evaporation ponds -- following a demonstration that they comply with EPA's standards for nonradiological hazards at uranium tailings facilities -- would permit the proper disposal of recovered fluids thereby speeding up the drying out of the tailings themselves.

SRIC believes that NRC and NMEID have adequate existing regulatory and statutory authority to require UNC to take interim reclamation steps today that will move it closer to complete reclamation tomorrow. Mr. Garcia has indicated in conversations with SRIC staff (personal communication, June 23, 1986) that UNC has committed to reclamation but needs several months additional time to submit a reclamation plan that incorporates and demonstrates compliance with the NRC's 10 CFR 40 Appendix A tailings licensing and reclamation requirements and EPA's 40 CFR 192 Subpart D environmental standards. SRIC's proposal for an interim dewatering plan could be implemented prior to UNC's submittal of a reclamation plan and prior to NRC's approval of such a plan, without jeopardizing or interfering with the actual reclamation of the site.

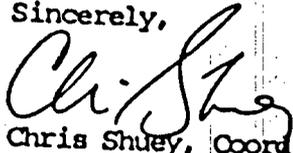
SRIC's proposal is presented in a spirit of cooperation and mindful of the common goal of the federal government, the state of New Mexico, and the licensee: to protect the public health and environment from the hazards associated with uranium mill tailings. SRIC is aware that NMEID and NRC staff have been discussing a common approach to ground water decontamination and tailings stabilization at all New Mexico active tailings sites. This proposal for interim tailings reclamation through dewatering can play an important part in initiating that common approach.

SRIC made known its willingness to discuss its interim ground water remediation proposal with NMEID's director and staff. It certainly is also willing to

Messrs. Smith, Pettengill, Garcia  
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discuss the proposal with NRC licensing staff at the NRC staff's convenience.  
Please feel free to contact the undersigned to arrange a meeting or to obtain  
supporting documentation or clarification of the contents of this letter.

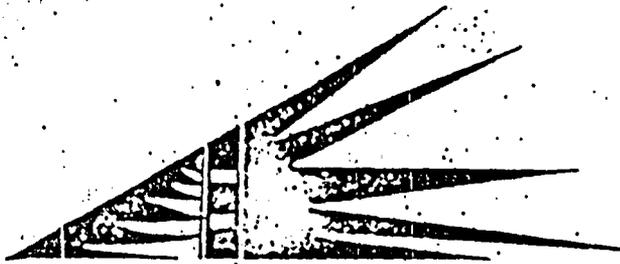
Sincerely,



Chris Shuey, Coordinator  
Ground Water Protection Project  
Puerco River Education Project

Attachment.

cc: Denise Fort, Carol Oppenheimer, Michael Brown, Ron Conrad --- NMEID  
Stanley Crout and Juan Velasquez --- UNC, Santa Fe  
Melinda Kassen and Bob Mason --- EDF, Boulder  
Michael C. Nelson, Louise Linkin, Masud Zaman --- Navajo Tribe, Window Rock  
Earnest Becenti Sr., Church Rock Chapter  
Rafael Martin, Pinedale Chapter



## SOUTHWEST RESEARCH AND INFORMATION CENTER

August 11, 1986

Ms. Denise Fort, Director  
New Mexico Environmental Improvement Division  
P.O. Box 968  
Santa Fe, NM 87504-0968

Re: DP-146, UNC Mining and Milling Division

Dear Ms. Fort:

The purposes of this letter are (1) to transmit Southwest Research and Information Center's (SRIC) comments on the proposed renewal of Discharge Plan DP-146, for UNC Mining and Milling Division's (UNC) Church Rock uranium mill; (2) to raise continued concerns about seepage of tailings fluids at the UNC site; and (3) to propose that the Division work with the U.S. Nuclear Regulatory Commission (NRC) to expedite approval of an interim ground water remediation plan that employs components of UNC's proposed DP-146.

By way of background, the subject discharge plan, which was initially approved by the Division on June 17, 1981 (subject to certain conditions), provides for the operation of three new evaporation ponds on the southeast corner of the existing mill tailings impoundment site in Section 2 of Township 16 North, Range 16 West, McKinley County, N.M. UNC chose not to construct the ponds following their approval. The three ponds are the main components of SRIC's proposed interim ground water remediation program, the details of which are described in Comment 5 below.

SRIC's comments on the proposed renewal of DP-146 are:

1. Renewal of the discharge plan should be for a period not to exceed two years. The authority and reasons for this request are:
  - a. The Director has discretion under Sec. 3-109.G.4. of the New Mexico Water Quality Control Commission Regulations (Rev. June 18, 1986) to approve plans for new discharges for a period not to exceed seven years. The Director's discretion extends to any number of years up to seven.
  - b. NRC will not approve construction of the new evaporation ponds until UNC seeks an amendment to its federal source material license and demonstrates that the ponds comply with the requirements of the U.S. Environmental Protection Agency's "primary standard" for new tailings impoundments or additions to existing impoundments (40 CFR 192.32(a)).

(continued)

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NRC's position in this matter is detailed in Attachment A, a copy of a letter from the Environmental Defense Fund to Mr. Pete Garcia, licensing officer for NRC's Uranium Recovery Field Office.

- c. NRC's authority to regulate the disposal of uranium mill tailings pursuant to the Atomic Energy Act (AEA) of 1954, as amended by the Uranium Mill Tailings Radiation Control Act (UMTRCA) of 1978, as amended, extends to ground water protection at mill tailings sites (AEA sec. 84.a.(1)-(3) and sec. 275.b.(2)). As such, NRC's authority may preempt the WCCC ground water regulations in areas where the federal and state rules overlap. Since NRC is likely to adopt revised regulations for ground water protection at mill tailings sites within the next year, a two-year approval period appears to be adequate to provide interim state regulatory authority.
- d. If the proposed ponds comply with the EPA standards, they could form an integral part of a comprehensive site decontamination, stabilization, and reclamation plan. NRC has requested new and revised reclamation plans for all New Mexico licenses, including UNC (personal communication with P. Garcia, NRC, June 23, 1986). A two-year approval of the state discharge permit would coincide with the likely date of NRC approval of a new reclamation plan that demonstrates compliance with 40 CFR 192 Subpart D and 10 CFR 40 Appendix A.
- e. A two-year approval period would permit the Division, in consultation with the NRC, to assess the performance of the ponds in the event they are constructed and operated in a manner consistent with the SRIC proposal described in Comment 5 below.

2. Approval of DP-146 should be conditioned to require UNC to inform the Division of its intent to construct the ponds at least 30 days prior to the initiation of construction. This would allow the Division time to notify NRC of UNC's intent. NRC would then have the opportunity to determine if UNC has demonstrated that its plan complies with the applicable federal standards and regulations. Expenditures for construction of ponds that may not comply with the federal standards would be avoided.

3. While we understand that the state may be limited in imposing the federal ground water standards on UNC's state discharge permit, there appears to be nothing illegal or unreasonable about informing the company that its disposal plans will eventually be required to meet the federal standards. By so informing UNC in a letter, the Division will have prevented confusion from arising over which standards are applicable.

4. While SRIC is not requesting a public hearing in this matter, we request that you inform the Navajo Tribe's Division of Water Resources and Environmental Protection Administration of your decision in this matter, and of any public comments you have received.

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5. In view of the desirability of moving quickly toward final decontamination, stabilization, and reclamation of the UNC tailings site, SRIC proposes that the Division and NRC work together to facilitate approval of an interim ground water remediation plan that uses the proposed southeast evaporation ponds to dewater the tailings pile. The reasons and bases for this proposal follow:

- a. As you are aware, seepage continues from the existing UNC tailings ponds into three distinct aquifers, the local alluvium and Zones 3 and 1 of the Upper Gallup Sandstone. SRIC acknowledges that your technical staff believes that the existing pumpback system is slowly reducing the concentrations of pollutants in the aquifers (personal communication with R. Conrad, July 18, 1986); from our review of the available water quality data, there appears to be significant declines in pollutant levels over the last four years. However, concentrations of total dissolved solids, sulfates, nitrates, arsenic, and in some cases pH, still exceed WQCC numerical standards in several wells on Indian lands northeast, east, and southwest of UNC's property. The concentrations of those pollutants make the ground water unfit for any use by local Navajos.
- b. The seepage problem was first addressed in DP-152, a discharge plan proposed by UNC in November 1980 that the Division never approved or denied, nor held a hearing on (see letter of Thomas E. Baca, March 31, 1981). The continued discharge of fluids from the tailings area apparently is condoned by the Division despite the fact that former Director Russell E. Rhoades on August 27, 1982, withdrew Division approval that had allowed UNC to discharge without an approved discharge plan for more than 20 months. Given this history, SRIC believes that it is time for the Division to take substantive action toward a final solution to the seepage problem.
- c. The existing pumpback system is not a permanent solution to the seepage program. Rather, it is simply a stopgap measure designed to prevent the further spread of pollutants. It is not designed to remove the pressures that continue to drive tailings liquids into the ground beneath the existing unlined ponds. Under the existing system, fluids recovered from the pumping wells are deposited back into the existing leaking borrow pits.
- d. SRIC proposes that the Division meet with the NRC to explore ways that the proposed southeast evaporation ponds can be used to store fluids recovered from the pumping wells north of the tailings impoundment. (Any use of the ponds would, of course, be subject to NRC's determination that the ponds comply with the applicable federal standards.) Storage of the fluids in lined evaporation ponds would allow the tailings to be dewatered and eventually to dry out -- a practice that will be a requisite portion of final reclamation.

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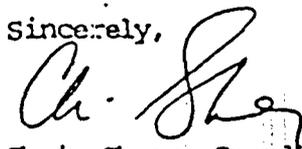
- e. Since dewatering of the tailings will be necessary prior to final reclamation at the site, and since UNC has informed NRC that it intends to proceed to final reclamation (personal communication with P. Garcia, June 23, 1986), SRIC believes that NRC could use its existing licensing authority under AEA and UMIRCA to allow UNC to take the interim reclamation step of tailings dewatering prior to the approval of a reclamation plan. Upon NRC licensing approval, UNC could proceed to construction and use of the ponds under authority of both the state discharge permit and the federal radiation license. Early and expedited approval of this interim plan by the Division and NRC would move UNC closer to final reclamation, at a lower cost. A two-year approval of the discharge plan would allow early state oversight of the interim ground water remediation plan; a longer approval period could be granted after the system has operated for two years if federal jurisdiction over the site has not been fully assumed.

In a letter dated today (copy enclosed as Attachment B), SRIC has asked the NRC to consider approving the proposed southeast evaporation ponds as a license amendment prior to approval of a final reclamation plan. Along with EDF staff, I will be meeting with NRC officials today to informally discuss this proposal. In essence, SRIC has proposed to NRC the same interim ground water remediation plan that it is suggesting herein.

SRIC asks that you discuss our proposal with NRC's staff and communicate the results of that discussion to me. SRIC would, of course, be happy to meet with you and your staff to further discuss this proposal. We certainly have no objections to representatives of the company and the Navajo Tribe attending such a meeting; in fact, we would encourage it.

SRIC appreciates the opportunity to comment on the proposed discharge plan. We have offered these comments and the proposal for tailings dewatering in the spirit of cooperation. We believe that such interim steps will move the company and the state toward their common goal of reclamation and permanent stabilization.

Sincerely,



Chris Shuey, Coordinator  
Ground Water Protection Project

Attachments.

cc: R. Dale Smith, Harry Pettengill, Pete Garcia -- USNRC, Denver  
Carol Oppenheimer, Michael Brown, Ron Conrad -- M&EID, Santa Fe  
Melinda Kassen, Bob Mason -- EDF, Boulder  
G. Stanley Crout and Juan Velasquez, UNC -- Santa Fe  
Michael C. Nelson, Louise Linkin, Masud Zaman -- Navajo Tribe, Window Rock  
Ernest Becenti Sr., Church Rock Chapter  
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