

**UNITED NUCLEAR**  
CORPORATION

MINING AND MILLING DIVISION

January 19, 1979

Mr. Thomas Baca  
Director, Environmental Improvement Division  
P.O. Box 2348 - Crown Building  
Santa Fe, New Mexico 87503

Re: Church Rock mine backfill

Dear Mr. Baca,

Under Section 3-106 B of the Water Quality Control Commission Regulations United Nuclear Corporation requests that with good cause you permit UNC to backfill portions of our Church Rock mine with Church Rock mill tailings without an approved discharge plan for a period not to exceed 120 days. This request has become necessary for the following reasons:

- 1) An immediate danger of caving exists at UNC's Church Rock mine. This danger has only recently become critical as indicated by the nature, size, and extent of stress cracks and by the limited ground falls that have already occurred. Without the immediate introduction of support in critical areas of the mine, the risk of losing a portion of the mine, is approaching unacceptable limits and could effect the safety of our miners. Please see the attached letter from Mr. John Abbiss calling the NMEID's attention to the problem.
- 2) Support in critical areas of the mine needs to be provided by sand fill. Although UNC is currently using available surface materials and surface mine wastes, these materials are limited. Mill tailings sands, separated from ana tailings slimes, are needed because of their drainage and compaction properties. After being pumped into the mine as a sand-water slurry, the water can drain off leaving a firm, structurally sound support from the floor to the ceiling of the endangered area. Without this type of support caving will result in pressures on other parts of the mine through a cantilever effect.
- 3) Permission is needed now, prior to the formal submission of a discharge plan, because sufficient time does not exist for completion of laboratory tests requested by both the water quality and radiation sections of the NMEID. In addition more time is needed for publication of a public notice, receipt of comments from that notice, and review of the discharge plan by the water quality section under the usual procedures followed by the NMEID.

- 4) Backfilling mines using uranium mill tailings is already being done by both Kerr McGee and Ranchers Exploration and Development Company. The impact of these operations on the ground waters of New Mexico is being monitored by both the water quality and radiation sections of the NMEID.
- 5) In a meeting between the NMEID and UNC on January 19, 1979 the following procedures have been established in principle.
  - a) The wording of an amendment to our Church Rock Mill Radioactive Materials License has been drafted. The radiation monitoring programs were likewise drafted.
  - b) The location and list of parameters for the water monitoring program were drafted for inclusion in the discharge plan.
- 6) With your approval to proceed with the mill tailings backfilling of the Church Rock mine, UNC will implement the draft monitoring programs agreed to in our discussions on January 19, 1979.

Your consideration in this matter is greatly appreciated.

Sincerely,



Noel Savignac  
Manager Environmental Services

cc: Dave Turberville  
H. John Abbiss ✓

NS: dan