



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV
URANIUM RECOVERY FIELD OFFICE
BOX 25325
DENVER, COLORADO 80225

OCT 24 1990

URFO:ROG
Docket No. 40-8907
040089071700

MEMORANDUM FOR: Docket File No. 40-8907
FROM: Raymond O. Gonzales
Project Manager
SUBJECT: MEETING WITH UNITED NUCLEAR CORPORATION TO DISCUSS
RECLAMATION PLAN FOR THE CHURCH ROCK MILL
DATE: October 12, 1990

Participants:

UNC
Paul McClain
Juan Velasquez

UNC Consultant
(Canonie Environmental)
Oliver Wesley
Mike Timmer

URFO
Ramon Hall
Edward Hawkins
Joel Grimm
Dawn Jacoby
Paul Michaud
Ray Gonzales

NRC-Headquarters
Terry Johnson

Purpose of Meeting: URFO requested the meeting to discuss UNC's September 12, 1990, submittal which provided partial responses to URFO's June 29 and August 16, 1990, requests for additional information. The following issues were discussed:

Item No. 1 in URFO's June 29, 1990, letter concerns the proposed construction quality control program. UNC's September 12, 1990, response to this item was discussed in detail. As a result of that discussion, UNC will submit (1) a commitment to test (Proctor density and soil classification) all new materials encountered in the borrow areas; (2) a procedure to establish an initial

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RGonzales/lv
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PM: URFO
PGarcia
10/24/90

DD: URFO
EHawkins
10/24/90

D: URFO:RIV
REHall
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correlation between nuclear gauge densities and sand cone densities; and (3) a procedure to follow when adequate correlation is not possible. Also, Table 1 of the September 12, 1990, submittal will be revisited to assure that it is in agreement with the text. NRC finds these commitments acceptable.

Item Nos. 2-6 in URFO's June 29, 1990, letter concern the suitability of the materials proposed for the radon cover. UNC responded to these items in their September 12, 1990, submittal. They had proposed a cover thickness of 3.4 feet. Assuming that there are no errors in the licensee's analysis, the NRC agreed that this thickness is adequate provided that suitable soils are used in constructing the radon cover. To assure this, the NRC will require the specification be revised to limit soil types to those shown in Figure 2 of the September 12, 1990, submittal. UNC agreed to this. UNC was cautioned that NRC's agreement that a 3.4 foot cover is adequate is a preliminary conclusion based solely on a review of their submittal. A final determination on the required thickness will be based on an independent analysis using the RADON computer model.

Item Nos. 7 and 8 in URFO's June 29, 1990, letter address the slopes of the pile top and the slopes of the dam embankment. UNC has not provided responses to these items. Without rock armoring, the staff considers both slopes to be too steep to prevent erosion. UNC contends that the cost of providing rock armoring is excessive and not required to protect the public health and safety. Therefore, in responding to item Nos. 7 and 8, UNC will provide additional information to substantiate and justify their contention that costs are excessive and not necessary. If costs for providing 1000-year protection are excessive, UNC will consider a 200-year design.

Item Nos. 9a, 9b, and 9c in URFO's August 16, 1990, letter concern the stability of Pipeline Arroyo. In the September 12, 1990, submittal, UNC responded to item No. 9a by proposing design changes to Pipeline Arroyo in the upper reach upstream of the north end of the tailings pile. The NRC reviewed the changes and found them acceptable. Responses to item Nos. 9b and 9c, which concern the stability of the middle and lower reaches of Pipeline Arroyo, were not provided by UNC in their September 12, 1990, submittal. At the meeting, UNC committed to revisit the design of the middle portion of the arroyo, which is between the north end of the pile and the nickpoint, to determine if an alternative design is feasible. For the lower reach below the nickpoint, UNC will provide additional analysis to show that even if erosion of the arroyo occurs, the stability of the reclaimed pile will not be affected.

Item No. 11 in URFO's June 29, 1990, letter concerns the rock source to be used for erosion protection. In their September 12, 1990 submittal, UNC committed

to provide rock specifications that will conform with the NRC position paper on erosion protection. UNC was advised that this is acceptable provided that rock gradation specifications are also included in the specifications.

Item No. 12 in URFO's June 29, 1990, letter questioned whether a filter layer would be placed under all riprap. UNC's response in their September 12, 1990, submittal confirmed that all riprap will be underlain by a filter.

Item No. 13 in URFO's June 29, 1990, letter concerns the stability of a steep cut in the North Diversion Ditch. A response to this concern provided by UNC in their September 12, 1990, submittal concluded that the steep cut is in competent rock and is therefore stable. Based on the information provided, the NRC staff was unable to accept UNC's conclusion. As a result, UNC agreed to provide additional information. This will include consideration of bedding planes, joints, and fractures in the rock. In addition, UNC will evaluate the effects of failure on routing of storm events.

The adequacy of the design of North and South Diversion Ditches was also discussed. UNC contends that this issue was discussed previously, and information was provided to substantiate that erosion of the ditches over the design life will not affect the stability of the reclaimed pile. The staff will re-review all of the information provided on the design of the ditches and, if necessary, request additional information. It was concluded that any potential modification to the design of the ditches should not significantly affect the total cost of the reclamation plan and the total surety amount.

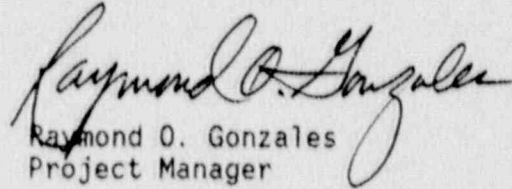
The importance of having an adequate surety in place by the end of the year was also discussed. UNC asked if they will be required to provide a sufficient bond amount to cover the total cost of ground-water cleanup. They are concerned that the bond they already have with EPA may include the same requirements as the NRC license. UNC was advised that if this is so, we may be able to reduce the surety amount accordingly. NRC also pointed out that the cost estimate must include an amount for the New Mexico gross receipt tax which is 5.125 percent. In addition, the surety must include the \$486,000 long-term surveillance fee required by criterion 10, and the cost estimate must be in 1990 dollars.

At the conclusion of the meeting, UNC was requested to provide the required additional information by November 1, 1990. Their response was that considering the amount of work required, they cannot provide responses until December 1, 1990. UNC also pointed out that their license states that a surety has to be based on an approved reclamation plan, and that they are not required to provide a surety until 90 days after approval of a reclamation plan.

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Because of this, they voiced their reluctance to provide an interim surety until the entire reclamation plan is approved.


Raymond O. Gonzales
Project Manager

bcc:
PDR/DCS
URFO r/f
ABBeach, RIV
LLO Branch, LLWM
RGonzales
DJacoby
PMichaud
JGrimm
EHawkins
RHall
PGarcia