

**THE  
NAVAJO  
NATION**

P.O. BOX 9000

WINDOW ROCK, ARIZONA 86515

(602) 871-4941

Post-it Fax Note	7671	Date		# of pages	4
To	Ken Hooks		From	Julie Curtiss	
Co./Dept.			Co.		
Phone #			Phone #		
Fax #			Fax #		

ALBERT HALE  
PRESIDENTTHOMAS ATCITTY  
VICE-PRESIDENT

November 5, 1996

Shawn Ghose  
Superfund Division (6SF-LN)  
U.S. Environmental Protection Agency, Region VI  
1445 Ross Avenue  
Dallas, TX 75202-2733

Re: Comments on NRC's Draft Technical Evaluation Report

Dear Shawn,

Having received and quickly reviewed the draft Technical Evaluation Report, the Navajo Superfund Program (NSP) has the following comments on it and on your proposed response.

With regard to your draft response letter, NSP feels that it is somewhat vague in content. Specifically, please define the "separate forum" under which the "remediation values are modified." To which values are you referring? The NRC not only discusses nitrate, sulfate, and TDS values, but also, under Zone 3, refers to molybdenum and arsenic. In addition, Virginia Colten-Bradley's report reviewed the standards for iron and manganese. Again, your comment on Zone 3 is not specific enough.

With regard to Zone 1, there are no details included about the process the EPA will have to go through to allow UNC to discontinue treating the groundwater in Zone 1. The impacted area is completely under EPA jurisdiction; the ACL will only apply to the wells at the boundary of Sections 1 and 2. NRC has made a great effort to include many details of EPA oversight and regulatory authority in their report; please insure that they have all the necessary and relevant details.

Thank you for the opportunity to provide these comments.

Sincerely,

Julie Curtiss, Environmental Specialist III  
Navajo Superfund Program

xc: Stuart Kent, NMED (by FAX)

9611070156 961105  
PDR ADOCK 04008907  
C PDR

Rec'd: NMSS/HKure

40-8907

NLOS  
11/1

Navajo Superfund Program  
Navajo Nation Environmental Protection Agency

**Comments on the Nuclear Regulatory Commission Draft Technical Evaluation Report on  
United Nuclear Corporation's Five-Year Review for the Church Rock, New Mexico,  
Groundwater Corrective Action Program**

**Southwest Alluvium**

1. NSP agrees with the NRC and the EPA that the remediation standards for nitrate, sulfate, and TDS should be revised (TER, p. 5, 6). NSP supports the use of NRC's suggested standards of 190-205 mg/l for nitrate, 2125 mg/l for sulfate, and 4800 mg/l for TDS. These values are derived from a report<sup>1</sup> written by Virginia Colten-Bradley (NRC). NSP agrees with the statement in the TER that the geochemical equilibrium will continue to shift given the expected continued decline in water levels within the alluvial aquifer, and thus that establishing fixed standards may be very difficult.
2. NRC states that they would support the EPA in a decision to drop the remediation standards for nitrates, sulfates, and TDS (TER, p. 5). In her report, however, Ms. Colten-Bradley recommends that "the source of nitrate in the soils and alluvial sediments still needs resolution" (p. 11). For this reason, the NSP is unable to support any decision to drop the remediation standard for nitrates.
3. NSP especially supports the NRC in their statement that United Nuclear has not addressed other site-specific hazardous constituents identified in the ROD and the license (TER, p. 6). NSP, NRC, NMED and EPA staff have commented on the lack of data for a number of constituents that United Nuclear either has not sampled for, or for which they have not reported sampling results. The continued focus in the United Nuclear annual review reports on nitrate, sulfate, and TDS ignores the relevance of these other constituents in tracking the progress of remedial action.
5. Last, NSP supports NRC in their statement that the objectives of the corrective action for the Southwest Alluvium have not been met, either under the NRC license or under the ROD (TER, p. 6, 7, 9), and that remedial action in the Southwest Alluvium should continue.

**Zone 3, Gallup Formation**

1. NSP agrees with the NRC statement that compliance with the remediation standards, whether

---

<sup>1</sup>"Evaluation of the Statistical Basis for Establishing Background Levels and Remediation Standards at the United Nuclear Corporation Church Rock Uranium Mill Tailings Disposal Facility, Gallup, New Mexico," Virginia Colten-Bradley, Geochemist, Performance Assessment and HLW Integration Branch, U.S. Nuclear Regulatory Commission, June 10, 1996.

the current standards or any amended standards, must be demonstrated by United Nuclear before remedial action ceases in any of the impacted aquifers (TER, p. 8, 9). NSP applauds the statement that "Dewatering may not represent, by itself, compliance with the standards," a position that NSP and NMED have maintained for some time. United Nuclear presumes that recharge from the alluvium into Zone 3 will continue; however, there is little data to support this presumption, and good reason to believe that in the near future, recharge from the alluvium into Zone 3 will become negligible or cease. Even if groundwater were reintroduced into the "dirty sponge" that the Zone 3 aquifer would be at the end of dewatering, it would only cause significant remobilization of many of the constituents left behind by dewatering, depending on the geochemical makeup of the introduced groundwater.

2. Although NSP agrees with the rationale for using the same set of remediation standards for all three aquifers (TER, p. 9), NSP feels there are mechanisms available to establish separate standards for Zone 3 and Zone 1, if deemed necessary.
3. NSP supports the NRC and EPA in a limited fashion in their decision to revise and/or remove the remediation standards for nitrate, sulfate, and TDS (*See Southwest Alluvium comment #2, above*) (TER, p. 9).
4. NSP supports the proposal to restart Wells 714 and 715 (TER, p. 9).
5. NSP agrees with NRC's evaluation of United Nuclear's request to relax the remediation standards for molybdenum and arsenic (TER, p. 10). United Nuclear has done none of the necessary investigation to support their claim that the Gallup Formation is the source of many trace metals being seen in the sampling results.

#### Zone 1, Gallup Formation

1. NSP supports the NRC decision not to discontinue remedial action in Zone 1 (TER, p. 11, 12) until acceptance of an ACL application and completed ALARA demonstration. However, it is NSP's understanding that not only will the NRC have to approve the ACL application, but that the EPA and the State of New Mexico will also have to take regulatory action in order to allow any waiver of the ARARs currently in place. It would behoove United Nuclear to contact the EPA and NMED to ascertain the details of these processes.

#### Other UNC Requests

1. NSP supports the idea of reducing the sampling frequency to semiannually (TER, p. 12). A statistically significant body of samples currently exists, and any potential future changes in water quality trends will still be quite evident.

#### Other Issues

1. Both the State of New Mexico and NSP have felt for some time that additional impacts on

the geochemistry of two areas north of the North Cell have been ignored. The first area is immediately north of the North Cell, and was identified in the ROD as having been impacted by mounded seepage from the North Cell. This is the area that alluvial groundwater passes through before recharging Zone 3. The second area is that of the 600-series wells. The exact specifics of impacts in this area are unclear, and may be due to specific impacts from the Gallup Formation (which has produced oil in some monitoring wells in this area), or may be due to poorly-defined activities by Quivira Mining Company within their lease area.

However, NSP feels it is not incumbent upon United Nuclear to explain the why these areas were excluded from the corrective action program. It is the duty of the EPA, who produced the ROD which first defined, and then excluded, these areas of potential contamination.