

40-8907

RETURN ORIGINAL TO PDR, HQ.

November 24, 1993

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Ms. Debra Griswold (6H-EO)
U.S. EPA, Region VI
1445 Ross Avenue, Suite 1200
Dallas, Tx 75202-2733

RE: United Nuclear Corp. Churchrock (CERCLIS ID:
NMD 030443303)

Dear Ms. Griswold:

On August 13, 1993, the New Mexico Environment Department (NMED) met with Environmental Protection Agency, Region VI, (EPA) and the Nuclear Regulatory Commission, Region IV, (NRC) to discuss the issue of appropriate and relevant background levels for on site contaminants and proposed changes to the Record Of Decision (ROD) and subsequent NRC licensing action for the United Nuclear Corporation (UNC) Churchrock Superfund Site. At this meeting, EPA was to have presented an opinion in writing.

NMED has not received EPA's letter regarding the issue of appropriate and relevant background levels for on-site contaminants and proposed changes to the ROD. NMED prepared a response to the issue of appropriate and relevant background levels for on-site contaminants and proposed changes to the ROD in an August 10, 1990, letter to EPA.

EPA and NRC negotiated amendments to the NRC licence for the UNC Churchrock Superfund Site without seeking comments from NMED. NRC issued licensing action for the UNC Churchrock Superfund Site in Docket No. 40-8907 SUA-1475, Amendment No. 18 and 19 on September 24, 1993, and October 22, 1993, respectively.

As stated in the Superfund Memorandum of Agreement (SMOA) between the State of New Mexico and the EPA, the role of the support agency (NMED) is to evaluate and comment on major decision points and to provide input on all issues, whether broad or technical. NMED was not involved in the process between EPA and the NRC regarding the latest licensing action.

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DESIGNATED ORIGINAL

Certified By Mary C. Ford

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STATE OF NEW MEXICO
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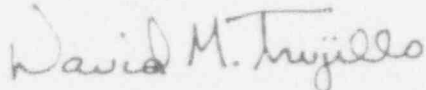


Page 2
November 23, 1993
Ms. Griswold

In the NRC licensing action in Docket No. 40-8907 SUA-1475, Amendment No. 4., NRC states that for non-hazardous, non-radioactive contaminants, State as well as secondary use standards do exist and that all ground-water monitoring conditions are consolidated in Condition 30 of Amendment No. 4. Since the changes to the ROD and subsequent NRC licensing action proposed by UNC involved eliminating the nitrate standard, raising the total dissolved solids background standard from 3,170 mg/l to 8,096 mg/l, and raising the sulfate background standard from 2,160 mg/l to 3,342 mg/l, NMED considers State involvement in this decision process to be critical and necessary.

Please contact me at telephone number (505) 827-2899, if you should have any questions regarding this letter or any other questions regarding the UNC Churchrock Superfund Site.

Sincerely,



David M. Trujillo
Water Resource Specialist
NMED, Superfund Section

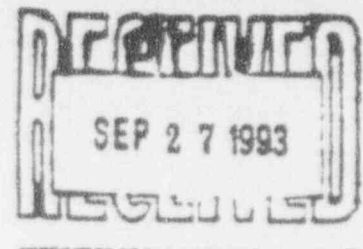
DMT:dmt

cc: Mark Satterwhite, EPA, Region VI
Shawn Ghose, EPA, Region VI
Julie Curtis, Navajo EPA
Gary Konwinski, NRC
Susan A. Morris, NMED, GWP & RB



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV
URANIUM RECOVERY FIELD OFFICE
BOX 2532
DENVER, COLORADO 80225



SEP 14 1993

Docket No. 40-8907
SUA-1475, Amendment No. 13

United Nuclear Corporation
ATTN: Juan R. Velasquez
1700 Louisiana N.E., Suite 230
Albuquerque, New Mexico 87110

Dear Mr. Velasquez:

The NRC has completed a review of your annual surety update as submitted in your letter dated March 30, 1993. The cost estimate was appropriately adjusted for completed mill decommissioning and ore pad/catch basin cleanup activities, and increased for remaining seepage collection activities. The revised total was increased by 5.0 percent to account for the effects of inflation through January 1993. The cost estimate for remaining reclamation activities of \$6,764,117 is acceptable.

We have also revised the reference to the letter of credit held by the Environmental Protection Agency, in accordance with your letter dated November 5, 1992. We have deleted reference to the specific instrument and financial institution as you requested. You are no longer required to obtain prior NRC approval of any changes in the issuing institution, as long as it remains an entity that has authority to issue such instruments and whose operations are regulated and examined by a Federal or State agency. Prior approval of the NRC is required before the amount of the letter of credit may be reduced. You are also required to inform the NRC of any such changes to the letter of credit.

Therefore, in accordance with Title 10 of the Code of Federal Regulations, Part 40, Source Material License SUA-1475 is hereby amended by revising License Condition No. 25 to read as follows:

25. The licensee shall maintain an NRC-approved financial surety arrangement, consistent with 10 CFR 40, Appendix A, Criteria 9 and 10, adequate to cover the estimated costs, if accomplished by a third party, for decommissioning and decontamination of the mill and mill site, reclamation of any tailings or waste disposal areas, ground-water restoration as warranted, and the long-term surveillance fee.

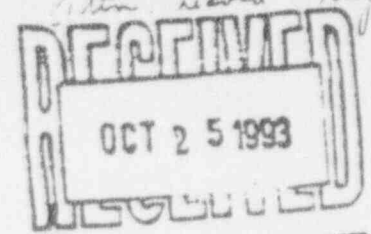
Annual updates to the surety amount, required by 10 CFR 40, Appendix A, Criteria 9 and 10, shall be submitted to the NRC by March 31 of each



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV

URANIUM REGULATORY FIELD OFFICE
BOX 5325
DENVER, COLORADO 80225



OCT 22 1993

Docket No. 40-8907
SUA-1475, Amendment No. 19

UNC Mining and Milling
ATTN: Juan R. Velasquez
1700 Louisiana Blvd., NE, Suite 230
Albuquerque, New Mexico 87110



Gentlemen:

Our office is in receipt of your amendment request submitted by letter dated August 17, 1993. Based upon the information contained in this request, it is our understanding that you are requesting modification of License Condition Nos. 15, 19, 24, 28, and 30. In consideration of your submittal, as well as additional information that is contained in our files, our conclusions are discussed below.

We agree with your conclusion that License Condition Nos. 15 and 24 are no longer relevant. Due to this, these license conditions have been deleted from Source Material License SUA-1475. Similarly, because the mill has been completely decommissioned, the references to "mill" as well as the phrase "who is responsible for radiation safety aspects of mill decommissioning" have been deleted from License Condition No. 19.

Your review of License Condition No. 28, which indicates that language was inadvertently omitted during a previous license amendment is correct. Due to this, the procedure revisions contained in your April 3, 1993, submittal have been reinstated into your license as you have requested.

Your proposed modifications to License Condition No. 30 include modifications to the corrective action program in Zone 1, Zone 3, and the Southwest Alluvium as well as removing cyanide and naphthalene from the list of monitored hazardous constituents. Based upon the water quality data that has been collected over the period of record, there is sufficient data to support removing these parameters from the license-specified monitoring program. The proposed modifications to the corrective action program areas are discussed individually.

Your proposal to discontinue the corrective action program in Zone 1 cannot be approved at this time. Such an action would require that the concentrations of hazardous constituents have been reduced to background values, the Table 5C value, or an alternate concentration limit. There has been no demonstration that any of these goals have been attained in this area. There is evidence that the concentrations of hazardous constituents may have been reduced to

1. Introduction

1.1 Purpose of the Agreement

2. Agreement

2.1 Site Location

2.2 MFL 44 Contact

2.3 MFL 44 Contact

2.4 Key Contact Information

2.5 Lead Support - Lead Instructions

2.6 Points of Contact

2.7 Communication, Reporting, and Monitoring Activities

2.8 Administration of Federal Response Agreements

2.9 Cooperative Agreements

2.10 Supporting State Activities

2.11 1995 Federal Cooperative Agreement

2.12 Selection of Party

2.13 Removal of Party

2.14 Federal Policy

2.15

2.16

2.17 Administrative Record

2.18 Site-Specific Oversight

2.19 Enforcement - RESERVED

2.20 Intergovernmental Review

2.21 Procurement Administration

2.22 NPL Site Deletion Package

2.23 Resolution of Disputes

2.24 Execution and Modification

Attachment 1 - Site List

Handwritten note: 10/10/1994

Handwritten note: 10/10/1994

Handwritten note: 10/10/1994

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4. Ensure that any response activities conducted at these sites are consistent with RCRA and the CERCLA and

5. Ensure that Quality Assurance (QA) practices are developed and implemented pursuant to an EPA approved plan for response activities, integrating data quality objectives, quality reports, and corrective action.

1. Purposes

1. The State of New Mexico has an important role to play in the management of hazardous waste. This is especially true in regard to Superfund. The NMEID has built a strong reputation for protecting and preserving New Mexico's environment, and benefits from quality programs and strong environmental legislation. However, it is incumbent on both EPA and NMEID to utilize, to the greatest practicable extent, the resources available to each agency.

2. For those Superfund sites nearing the remedial action phase and for which potentially responsible parties (PRPs) have either not been identified or for which PRPs have elected to not fund remedial action, the State is required to provide 10-percent match funding. Until EPA can be provided assurance of available State dollars for match funding, remedial action at a site can not begin. Therefore, it is incumbent on NMEID and EPA to anticipate future State funding needs as early as possible.

3. It is the role of the support agency to evaluate and comment on major decision points, broad issues and overall results. It is recognized that there are many ways to approach investigation and cleanup of hazardous substance sites. Therefore, the lead agency must have discretion in approaching site investigations and cleanups within constraints set by federal and State law, the CERCLA, and Federal and State regulations, guidelines and policies. The support agency agrees to provide input on all issues, whether broad or technical, with the understanding that the lead agency has discretion to make final decisions.

4. Close cooperation and communication between EPA and the State in planning and carrying out response activities at NPL sites is necessary to obtain maximum effect and to avoid possible conflicts and duplication.

5. Aggressive and timely enforcement is an essential component of successful EPA and State response at NPL sites.

6. The lead agency is responsible for keeping the support agency informed of all important actions pertaining to any site.

7. EPA and NMEID will formally review this SMOA once a year, during the first quarter of each Federal fiscal year (October, November, December). In addition, EPA will prepare quarterly reviews of the State's Superfund program. Performance under this SMOA may be formally reviewed at least semi-annually (at a minimum) by the Director, Hazardous Waste Management Division. The SMOA may be modified, in writing, upon the request of either EPA or the NMEID. All modifications must be mutually agreed upon, in writing. If agreement on program modifications cannot be reached initially by EPA and NMEID primary contacts, the procedures for Resolution of Disputes as provided for in Section 7 of this SMOA shall be followed.



UNITED STATES
 NUCLEAR REGULATORY COMMISSION

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

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URFO:GRK
 Docket No. 40-8907
 SUA-1475, Amendment No. 4
 04008907250E

Handwritten notes:
 Read now
 Tom Brunson
 1/15/88
 in case 7

United Nuclear Corporation
 6501 Americas Parkway, NE, Suite 1040
 Albuquerque, New Mexico 87110

Gentlemen:

We have reviewed your compliance monitoring submittal dated October 31, 1988. The staff has concluded that appropriate wells have been monitored for the hazardous constituents and chemical parameters specified in License Condition No. 30, Subsections A, B and C. Your analytical data and number of samples are consistent with Subsection E. This information provides a basis for amending Source Material License SUA-1475 as described below.

By this licensing action, the Commission is identifying the hazardous constituents, establishing the concentration limits and adjusting the points of compliance in accordance with Criterion 5B(1).

The hazardous constituents listed in this amendment meet the definition set forth in Criterion 5B(2), in that (a) they are reasonably expected to be in or derived from the byproduct material in the disposal area; (b) the constituent has been detected in the ground water in the uppermost aquifer; and (c) the constituent is listed in Criterion 13 of Appendix A, 10 CFR Part 40.

In the determination of background concentrations of the monitored parameters, we find that you did not comply with License Condition No. 30(D). In the absence of compliance with Condition 30(D), we have utilized the data that you submitted to establish background concentrations to be used in setting ground-water protection standards in accordance with Criterion 5B(5), Appendix A, 10 CFR Part 40. The analytical treatment of your data is discussed in the memorandum to files identified as Attachment A. Attachment B addresses the apparent noncompliance with License Condition No. 30(D) and requires a response within 30 days.

In the enclosed license amendment, we have established ground-water protection standards at the points of compliance. In accordance with Criterion 5B(5), these standards are the approved background concentration levels, or the Table 5C concentration values if they are higher.

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As was discussed in the Alternate Concentration Limits Workshop, which UNC representatives attended, a request for an alternate concentration limit submitted in accordance with Criterion 5B(6) must be based on consideration of corrective actions which reduce the concentration to a level that is as low as is reasonably achievable, and which can be shown to be acceptable from a health and safety standpoint. The concentration limits that you have proposed that did not conform to either the background or Table 5C values, would appear to be alternate concentration limits. We have deferred licensing action on these concentrations because your request is not substantiated by the appropriate restoration or health considerations. We are enclosing a copy of the Commission's draft staff position on how to prepare such an application.

Criterion 5D requires that if the ground-water protection standards are exceeded, a corrective action program must be put into operation as soon as is practicable, and in no event later than eighteen (18) months after the Commission finds that the standards have been exceeded. As a result of our evaluation of your ground-water monitoring data, we have determined that several of the standards have been exceeded. Specifically cyanide, gross alpha, lead-210, combined radium-226 and 228, selenium and thorium-210 are in exceedance of the standards in the alluvium. Beryllium, cadmium, cyanide, gross alpha, lead-210, nickel, combined radium-226 and 228, selenium and thorium-230 exceed standards in the Zone 1. Similarly, arsenic, beryllium, cadmium, chloroform, cyanide, gross alpha, lead, lead-210, naphthalene, nickel, combined radium-226 and 228, selenium, thorium-230, uranium and vanadium exceed standards in Zone 3. Therefore, UNC will be required to submit a corrective action plan. Your corrective action plan must be approved by our office and in operation by July 1, 1990. Accordingly, we are requesting a submittal of your proposed corrective action plan by April 1, 1989. Please include in this plan an estimate of the costs of the corrective action plan to be included in the financial surety required by Criterion 9 of Appendix A.

You will note that your amended ground-water monitoring program contains a data collection requirement for several ground-water constituents not considered hazardous. Prior to license termination, the National Environmental Policy Act (NEPA) requires that the NRC must make a determination whether there has been a significant impact on the quality of the human environment. This will require consideration of all contaminants affecting ground-water quality. Data from your monitoring program are necessary for NRC to make its NEPA determination. Although NRC ground-water protection standards have not been established for non-hazardous, non-radioactive contaminants, State standards as well as secondary use standards do exist. Prior to license termination, the results of your overall ground-water remediation program will be compared with ground-water protection standards as well as other State or secondary standards to determine the significance of impacts from your uranium recovery activities on the ground water. Accordingly, your corrective action program is to be directed at remediation not only of the hazardous constituents but other elevated parameters as well, such as total dissolved solids, nitrate, sulfate and other constituents as necessary.

We are aware of the ground-water remediation commitment that you have previously made to this office and your meetings with the EPA and the State of

JAN 3 1989

New Mexico, and are confident that UNC is in a position to submit a ground-water remediation proposal that includes corrective action in the alluvial materials zone. In light of the ground-water protection standards that have been established, you may wish to reevaluate the commitments that you have made in Zone 1 and Zone 3, and integrate them with similar commitments that have not been made, but are necessary for the alluvial materials.

Please also note that point of compliance wells have been established for the various zones of seepage. These wells were chosen based upon their ability to adequately monitor plume movement and provide early warning of leakage. In accordance with Criterion 5B(1), we have adjusted the point of compliance, selecting several additional monitoring wells. These adjustments are discussed in the attached memo to the docket file. In the selection of these wells, your March 1, 1988 submittal was consulted. To the extent possible, your proposals for point of compliance wells were utilized.

You will note that the ground-water requirements listed in License Condition No. 28 have been deleted from this license condition and now appear in License Condition No. 30. This consolidation effort brings all ground-water monitoring within a single license condition.

Based upon the data in your October 31, 1988 submittal, subsequent telephone conversations and pursuant to Title 10, Code of Federal Regulations, Part 40, Source Material License SUA-1475 is hereby amended by revising License Condition Nos. 28 and 30 to read as follows:

28. The licensee shall implement the radiation safety and environmental monitoring programs specified in the licensee's submittals dated February 13 and March 16, 1987, with the following modifications or additions:
 - A. A copy of the report documenting the ALARA audit discussed in the February 13, 1987 submittal shall be submitted to the Uranium Recovery Field Office, USNRC, within 30 days of completion of the audit.
 - B. Action levels for surface and personnel contamination surveys shall be as specified in Table 1 of the licensee's Procedure EMP-8.
 - C. Instrument alarm points for alpha survey equipment shall be determined based on the efficiency of the instrument and the area of the probe.
 - D. EPA-certified laboratories shall be utilized for all sample analyses.
 - E. Lower limits of detection utilized for analysis of in-plant and environmental samples shall be in accordance with recommendations contained in Table 2 of Regulatory Guide 8.30 and Section 5 of Regulatory Guide 4.14, respectively.

JAN 3 1989

- F. Notwithstanding the ground-water monitoring specified in the licensee's submittals, the licensee shall perform the compliance monitoring program specified in License Condition No. 30.
30. The licensee shall implement a compliance monitoring program containing the following:

- A. Sample Wells GW 1-4; EPA Wells 1-28 and EPA-22A (excepting EPA Wells 6, 10, 16, 18, 20, 21, 22, 24 and 26); and Wells 411, 420, 501-B, 502-B, 504-B, 509-D, 515A, 516A, 517, 518, 604, 614, 619, 632, TWQ-90, TWQ-1060, TWQ-29A, TWQ-141, TWQ-142 and TWQ-143, on a quarterly frequency for chloride, nitrate, sulfate, ammonia, manganese, calcium, magnesium, sodium, bicarbonate, potassium, field-pH, TDS and water level, and on a semiannual frequency for arsenic, beryllium, cadmium, chloroform, cyanide, lead, lead-210, naphthalene, nickel, combined radium-226 and 228, selenium, thorium-230, uranium, gross alpha and vanadium.

Notwithstanding the above, the licensee is only required to sample EPA wells after receipt of written authorization by the land owner to enter that area for the purpose of sampling ground water from those specified wells. The licensee shall make every reasonable effort to obtain such authorization. If authorization is not obtained, the licensee shall inform the NRC, Uranium Recovery Field Office, promptly.

- B. Comply with the following ground-water protection standards at point of compliance wells GW-1, GW-2, 632, EPA-23, EPA-28, 509-D and EPA-22A in the alluvium: 614, 604, EPA-4, EPA-7 and 516-A in Zone 1; and 517, 518, EPA-3, 501-B and EPA-18 in Zone 3:

arsenic = 0.05 mg/l, beryllium = 0.05 mg/l, cadmium = 0.01 mg/l, chloroform = 0.001 mg/l, cyanide = 0.005 mg/l, gross alpha = 15.0 pCi/l, lead = 0.05 mg/l, lead-210 = 1.0 pCi/l, naphthalene = 0.001 mg/l, nickel = 0.05 mg/l, radium-226 and 228 = 5.0 pCi/l, selenium = 0.01 mg/l, thorium-230 = 5.0 pCi/l, uranium = 0.3 mg/l and vanadium = 0.1 mg/l.

- C. Implement a corrective action program in Zones 1 and 3 and the alluvium due to exceedance of ground-water protection standards with the objective of returning the concentrations of arsenic, beryllium, cadmium, chloroform, cyanide, gross alpha, lead, lead-210, naphthalene, nickel, radium-226 and 228, selenium, thorium-230, uranium and vanadium to the concentration limits specified in Subsection (B).

The corrective action program shall be proposed as designated in Criterion 5D, Appendix A, 10 CFR Part 40. Accordingly, the licensee shall, as soon as practicable but in no event later than April 1, 1989, submit to the Uranium Recovery Field Office a proposed corrective action program and cost estimate with supporting rationale for Commission

JAN 3 1989

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approval. The corrective action program shall be in operation by July 1, 1990.

All other conditions of this license shall remain the same. The effect of this amendment is to incorporate ground-water protection standards into your license and modify your license to recognize submittal of water quality data. The license is being reissued in its entirety to incorporate the revisions specified above.

The response directed by the Attachment B, Notice of Violation, is not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL-96-511.

In accordance with 10 CFR 2.790 and the Commission's regulations, a copy of this letter and enclosures will be placed in the NRC's Public Document Room.

FOR THE NUCLEAR REGULATORY COMMISSION



R. Dale Smith, Director
Uranium Recovery Field Office
Region IV

Enclosures: Source Material License SUA-1475
Attachment A: Staff Review Memorandum
Attachment B: Notice of Violation
Draft Technical Position on ACLs