UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005

April 11, 2003

Mr. Steve Cline
Manager, Remediation/Transactions
GE Engine Services
640 Freedom Business Center
King of Prussia, PA 19406

SUBJECT: NRC INSPECTION REPORT 040-08907/03-001

Dear Mr. Cline:

An NRC inspection was completed on April 2, 2003, at your former Church Rock Uranium Mill site located in McKinley County, New Mexico. The enclosed report presents the scope and results of that inspection.

The inspection consisted of a routine review of site status, decommissioning and reclamation activities, management organization and controls, radiation protection, radioactive waste management, and environmental monitoring. The inspection findings were presented to members of your staff at the conclusion of the onsite inspection. The enclosed report presents the results of that inspection.

Based on the results of this inspection, no violations or deviations were identified; therefore, no response to this letter is required.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Should you have any questions concerning this inspection, please contact
Mr. Louis C. Carson II at (817) 860-8221 or the undersigned at (817) 860-8186.

Sincerely,

/RA/

Charles L. Cain, Chief
Nuclear Materials Licensing Branch

Docket No.: 40-8907
License No.: SUA-1475
Enclosure:

NRC Inspection Report
040-08907/03-001

cc w/enclosure:
Mr. Roy Blickwedel
Remedial Project Manager
General Electric Company
640 Freedom Business Center
King of Prussia, PA 19406

Mr. Larry Bush
President & Operations Manager
UNC Mining and Milling
P.O. Box 3077
Gallup, New Mexico 87305-3077

Ms. Diane Malone
Navajo Superfund
P.O. Box 2946
Window Rock, Arizona 86515

Mr. Art Keinrath, Program Manager, LTS
U.S. Department of Energy
Grand Junction Project Office
P. O. Box 2567
2597 B 3/4 Road
Grand Junction, CO 81503

Ms. Robin Brown
New Mexico Environmental Department
P.O. Box 26110
1190 St. Francis Drive
Santa Fe, NM 87502

Mr. Mark Purcell
U.S. Environmental Protection Agency
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Mr. Pat Mackin, Assistant Director
Systems Engineering & Integration
Center for Nuclear Waste Regulatory Analyses
6220 Culebra Road
San Antonio, TX 78238-5166

New Mexico Radiation Control Program Director

bcc w/enclosure to (via ADAMS distrib.):
EECollins
SMFrant, NMSS/FCSS/URB
RWVonTill, NMSS/FCSS/URB
JEWhitten
CLCain
NBHolbrook
NMLB
RIV Nuclear Materials File - 5th Floor

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ENCLOSURE

U. S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket No.:	40-8907
License No.:	SUA-1475
Report No.:	40-8907/03-001
Licensee:	United Nuclear Corporation
Facility:	Former Church Rock Uranium Mill
Location:	McKinley County, New Mexico
Date:	April 2, 2003
Inspector:	Louis C. Carson II, Senior Health Physicist
Approved By:	Charles L. Cain, Chief Nuclear Materials Licensing Branch
Attachment:	Supplemental Inspection Information

EXECUTIVE SUMMARY

Former Church Rock Uranium Mill
NRC Inspection Report 040-08907/03-001

This inspection included a review of site status, decommissioning and reclamation activities, management organization and controls, radiation protection, radioactive waste management, and environmental monitoring.

Site Status and Decommissioning for Uranium Mills

- Site activities and decommissioning programs were being conducted in accordance with the reclamation plan, the license, and applicable NRC regulations for uranium mill sites (Section 1).

Management Organization and Controls Review

- The site organization and staffing were appropriate for the amount of work in progress at the facility and met license requirements (Section 2).

Radiation Protection

- Site fences and gates were secure, in good condition, and posted with the appropriate radioactive material signs (Section 3).

- The licensee had implemented a radiation protection program that met requirements of 10 CFR Part 20 and the license (Section 3).

- Program areas deemed satisfactory included training, equipment releases, instrument calibrations, and radiation work permits (Section 3).

Radioactive Waste Management and Environmental Monitoring

- The licensee's implementation of its radioactive waste management and environmental monitoring programs appeared effective and satisfied the applicable regulatory requirements and license conditions (Section 4).

- All reports related to the groundwater and environmental monitoring programs had been submitted to NRC as required. A review of the reports revealed that releases of radioactive materials to the environment were within regulatory limits during years 2001 and 2002 (Section 4).

Report Details

1 Decommissioning Inspection Procedure for Uranium Mill Sites (87654), Operations Review (88020), and Site Status

1.1 Inspection Scope

The site status and decommissioning program were reviewed to determine if licensee activities were being conducted in accordance with the site reclamation plan, the license, and applicable NRC regulations for uranium mill sites.

1.2 Observations and Findings

Site Status

United Nuclear Corporation's (UNC) Church Rock Uranium Mill operated between 1977 and 1982. Reclamation of the site began in 1984. The mill was decommissioned in 1992, and the NRC released the mill site and buildings in 1995 by License Amendment 21. At the time of the inspection, the site's restricted area was limited to the tailings area.

Site reclamation activities since the last NRC inspection included groundwater and evaporation pond monitoring. Two lined evaporation ponds encompassing approximately 17 acres had been in use for groundwater remediation. Each pond has a 7.5 million gallon water capacity. The licensee has not operated the ponds' evaporation misting system in support of groundwater remediation since January 2001. Site structures consisted only of office buildings. Except for the evaporation ponds, the placement of the final radon barrier was complete over the tailings area (approximately 110 acres).

1.3 Conclusion

The inspector concluded that site activities and decommissioning programs were being conducted in accordance with the reclamation plan, the license, and applicable NRC regulations for uranium mill sites.

2 Management Organization and Controls (88005)

2.1 Inspection Scope

The organization structure was reviewed to ensure that the licensee had established an organization with defined responsibilities and functions.

2.2 Observations and Findings

The UNC staff consisted of two full-time employees and one part-time employee which includes a general manager and a radiation safety officer (RSO). No changes had been made to the organization structure since the last inspection in May 2001. The site organizational structure met license requirements and was appropriate for the activities onsite.

2.3 Conclusions

The site organization and staffing were deemed appropriate for the amount of work in progress at the facility and met license requirements.

3 Radiation Protection (83822)

3.1 Inspection Scope

This portion of the inspection determined that the licensee's radiation protection program was conducted in compliance with the license and 10 CFR Part 20. Areas inspected included contamination surveys of equipment releases, radiation work, licensed material security, fence line postings, radiation work permits (RWPs), and radiation protection training records.

3.2 Observations and Findings

During the inspector's tour, fences and gates were observed to be in good condition and were properly posted. The inspector determined that licensed material was secure within the site property as required by 10 CFR 20.1801. Tailings area fences were posted with radioactive material signs as required by 10 CFR 20.1902. The inspector performed a limited independent radiological survey using an NRC-issued microRoentgen meter (Serial Number 15540, calibration due date of March 2, 2004) that was calibrated to radium-226. Gamma exposure rate measurements obtained by the inspector around the site ranged from 15 to 150 microRoentgen/hour at the evaporation ponds.

License Condition 11 requires that equipment or packages being released from restricted areas be surveyed for radioactive contamination. The inspector's review revealed that the licensee had not released equipment from the site restricted area since 1999. The inspector noted that the equipment release survey procedure in place was in accordance with the license and satisfied NRC's residual contamination guidelines.

License Condition 18 specifies that various documents relating to the radiation protection program must be maintained. The inspector reviewed records relating to instrument calibrations, personnel training, employee exposures, and equipment releases. No oversights in documentation were noted. Calibration records for

radiological survey instruments were current. Radiological survey instruments observed onsite had current instrument calibration stickers affixed.

The inspector confirmed that the licensee had conducted training annually for site employees by reviewing years 2001 and 2002 training records. The inspector also confirmed that the RSO had completed 40 hours of radiation safety training in December 2002. The inspector concluded that personnel training was sufficient to cover current operations.

License Condition 21 requires the use of RWPs for work not covered by standard operating procedures in restricted areas or areas where the significant potential for exposure to radioactive materials exists. The inspector determined that no RWPs were issued during this inspection interval, which was appropriate for the activities at the UNC site. The inspector concluded that no significant potential for exposure to radioactivity existed onsite at the present time.

3.3 Conclusions

The licensee had implemented a radiation protection program that satisfied the requirements established in 10 CFR Part 20 and the license. Site fences and gates were secure, in good condition, and had appropriate radioactive material postings. Program areas deemed satisfactory included the training, equipment releases, instrument calibrations, and RWPs.

4 Radioactive Waste Management (88035) and Environmental Protection (88045)

4.1 Inspection Scope

The radioactive waste management and environmental monitoring programs were reviewed to assess the effectiveness of the licensee's programs, and to evaluate the site's effects, if any, on the local environment.

4.2 Observations and Findings

Radioactive Effluents and Environmental Monitoring

License Conditions 12 and 30 require that effluent and environmental monitoring results be reported to the NRC semiannually. The inspector reviewed the semiannual effluent reports for years 2001 and 2002. In addition to environmental monitoring results, the license provided for review copies of the routine tailings area and environmental inspection records. The licensee's environmental monitoring program consisted of ambient gamma exposure measurements, air particulate counting, environmental inspection reports, map locations, and groundwater sampling.

Groundwater remediation has been the primary activity at the Church Rock site since the last inspection. License Condition 30 requires that a groundwater compliance monitoring program and corrective action program be implemented. The groundwater

compliance program consisted, in part, of sampling at compliance wells for a number of chemical and radiological constituents. A review of laboratory documentation revealed that the licensee had obtained the groundwater samples required by the license. The inspector noted that the licensee had used a contract laboratory for the radiological and non-radiological sample analyses.

The inspector concluded that the licensee had effectively implemented the radioactive waste management and environmental monitoring programs in accordance with the license. The environmental monitoring data results and site activities indicated that potential doses to the nearest member of the public were maintained well below the 100 millirem/year dose limit.

License Condition 31 requires that the licensee submit an "Annual Land Use Survey Report," which describes any significant land use changes by private owners of property located within 5 miles of the site. The licensee's reports did not identify any significant changes that had occurred for uses of residential and non-residential properties, grazing lands, and water supplies. The inspector determined that the licensee's reports satisfied the license requirement.

4.3 Conclusions

All reports related to the groundwater and environmental monitoring programs had been submitted to the NRC as required. A review of the reports revealed that releases of radioactive materials to the environment were within regulatory limits during the inspection period.

5 Exit Meeting Summary

An exit meeting was conducted at the conclusion of the inspection on April 2, 2003, and the inspector reviewed the scope and findings of the inspection. Licensee representatives acknowledged the findings as presented. The licensee did not identify as proprietary any information provided to, or reviewed by, the inspector.

ATTACHMENT

PARTIAL LIST OF PERSONS CONTACTED

Licensee

Larry Bush, President & General Manager
Max Chischilly, Radiation Safety Officer

New Mexico Environmental Department (NMED)

Louis Baca, Radiation Specialist, NMED
Dave Baggett, Radiation Specialist, NMED

INSPECTION PROCEDURES USED

IP 83822: Radiation Protection
IP 87654: Decommissioning Procedure for Uranium Mill Sites
IP 88005: Management Organization and Controls
IP 88020: Operations Review
IP 88035: Radioactive Waste Management
IP 88045: Environmental Protection

ITEMS OPENED, CLOSED AND DISCUSSED

Opened:
None

Closed:
None

Discussed:
None

LIST OF ACRONYMS USED

RSO	Radiation Safety Officer
RWP	Radiation Work Permits