

UNC MINING AND MILLING



Division of United Nuclear Corporation
A **UNC RESOURCES** Company

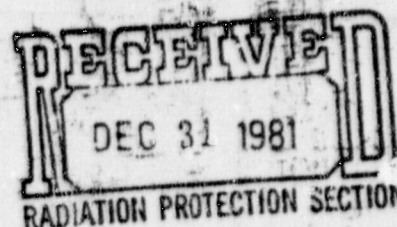
P.O. Box 3951
Albuquerque, New Mexico 87190

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Suite 116
Albuquerque, NM 87110

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Report #60

December 30, 1981

Mr. T. E. Baca, M.P.H.
Director
New Mexico Environmental Improvement Division
P.O. Box 968
Santa Fe, NM 87053



Dear Mr. Baca:

United Nuclear Corporation Mining and Milling Division is herewith submitting a copy of the Uranium Mill License Renewal Application for its Church Rock Mill, Gallup, New Mexico. In addition, the Application is supplemented with ten copies of the Environmental Report related to the Application. The Environmental Report is comprised of:

- Volume I - Text and Tables
- Volume II - Figures
- Volume III - Appendices

The Application and the accompanying Environmental Report are submitted in accordance with the New Mexico Environmental Improvement Division Radiation Protection Regulations, Section 3-430B.

Any correspondence related to the Application and Environmental Report should be addressed to the undersigned at the following address:

UNC Mining and Milling
Post Office Drawer QQ
Gallup, New Mexico 87301

Sincerely,

H. John Abbiss, P.E.
Vice President, Environmental and Safety Services
UNC Mining and Milling Division

HJA:tac

Enclosures

cc: G. W. Stewart - NMEID
G. S. Crout - Bigbee Law Firm
T. F. Bailey
T. M. Hill
G. A. Swanquist
T. F. Miller
K. G. Kennedy - D'Appolonia Consulting Engineers, Inc.

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PDR ADOCK 04008907
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APPLICATION FOR RADIOACTIVE MATERIAL LICENSE

INSTRUCTIONS: Complete Items 1 through 17 if this is an initial application. If application is for renewal of a license, complete only Items 1 through 7 and indicate new information or changes in the program as requested in Items 8 through 16.

| <p>1. (a) Name, street address, and phone number of applicant (Institution, Firm, Person, Etc., etc.)</p> <p>UNC Mining & Milling P. O. Drawer QQ Gallup, NM 87301</p> <p>(23 miles NE of Gallup) (505) 722-6651</p> | | <p>3. Previous License Numbers (If this is a renewal application, please so indicate and give current license no.)</p> <p>Renewal Application-Current Number is NM-UNC-ML-17</p> | | | | | | | | | | | | | |
|---|--|--|--|------|-------|-------------------|--|-------------|--------------------------------------|-------------|---------------------------|-----------------|-------------------------------------|---------|-------------------------|
| <p>(b) Street address(es) and phone number at which Radioactive Material will be stored and used. (P.O. Box numbers not acceptable)</p> <p>Copy of the patent for state land indicating ownership is attached (Attachment A) to this application.</p> | | <p>4. Individual Users (name and title of individuals who will use or directly supervise use of Radioactive Material)</p> <table border="1"> <thead> <tr> <th>NAME</th> <th>TITLE</th> </tr> </thead> <tbody> <tr> <td>H. J. Abbiss P.E.</td> <td>Vice President Environmental & Safety Services</td> </tr> <tr> <td>Todd Miller</td> <td>Director-Environmental Operations</td> </tr> <tr> <td>Glenn Clark</td> <td>Sr. Environmental Chemist</td> </tr> <tr> <td>G. A. Swanquist</td> <td>Gen. Mgr. Milling & Ion Exchange</td> </tr> <tr> <td>T. Hill</td> <td>Director-Tailings Mgmt.</td> </tr> </tbody> </table> | | NAME | TITLE | H. J. Abbiss P.E. | Vice President Environmental & Safety Services | Todd Miller | Director-Environmental Operations | Glenn Clark | Sr. Environmental Chemist | G. A. Swanquist | Gen. Mgr. Milling & Ion Exchange | T. Hill | Director-Tailings Mgmt. |
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| <p>2. Person to contact regarding application (include phone number)</p> <p>H. J. Abbiss P.E. Vice President UNC Mining & Milling (505) 722-6651</p> | | <p>5. Radiation Protection Officer (attach resume of training and experience)</p> <p>H. J. Abbiss, Todd Miller, Glenn Clark See Sec. 10.2</p> | | | | | | | | | | | | | |
| <p>6. (a) Element (b) Mass No. (c) Form (Chem/Phys) (d) Max. Activity (e) Manufacturer & Model No. if sealed source</p> <p>All isotopes encountered in the milling of natural uranium</p> <p>All natural radioisotopes encountered in uranium mill tailings sands</p> | | | | | | | | | | | | | | | |

7. Use to be made of each item of Radioactive Material requested above

Any required in the milling production U_3O_8

Chemical and physical forms encountered in uranium mill tailings sands

8. Individual User(s) Training (attach resume). Complete the following information on the individual user(s) and his training in:

- (A) Nuclear physics, atomic structure, and interaction of radiation with matter
- (B) Radiation detection instrumentation, calibration, and standardization
- (C) Radiation protection, waste disposal, and survey and dosimetric procedures
- (D) Radiobiology including effects of radiation on the human body

NAME, TITLE DEGREE(S)

Where trained

Length of academic training in A, B, C, D

Length of on-the-job training in A, B, C, D

See Section C10.0 in Environmental Report

9. Actual Experience with Radiation (actual use of radio isotopes) (attach resume)

NAME

Isotope

Maximum activity

Place of experience

Length of experience

See Section C10.0 in Environmental Report

10. Radiation Detection Instruments (use supplemental sheets if necessary)

TYPE

Number available

Radiation detected

Sensitivity range mr/Hr

Window thickness mp/cm²

Use of instrument (e.g. monitoring, surveying, measuring)

See Section C8.0 and Appendices G, H & I of Environmental Report

11. Method, frequency, and standard uses in calibrating instruments listed in Item 10 (attach necessary supplementary sheets)

See Section C8.0 and Appendices G, H & I of Environmental Report

12. Film Badges, Dosimeters, and Bioassay procedures used (for film badges, and TLD's, specify method of calibrating and processing, or name of supplier; specify frequency of exchange) (attach necessary supplemental sheets)

See Section C8.0 and Appendices G, H & I of the Environmental Report

ITEMS 13 THROUGH 16 ARE TO BE ANSWERED ON SUPPLEMENTAL SHEETS

13. Facilities and Equipment. Describe laboratory facilities and remote handling equipment, storage containers, shielding, fume hoods, etc. (attach explanatory sketch of facility) See Section C8.0 and Appendices G, H & I of the Environmental Report
14. Radiation Protection Program. Describe the radiation protection program including control measures. If application covers sealed sources, submit leak testing procedures where applicable, name, training, and experience of person to perform leak test, and arrangements for performing initial radiation survey, servicing, maintenance and repair of the source. See Section C10.0 and Appendix J of Environ. Report
15. Waste Disposal. If a commercial waste disposal service is employed, specify name of company. Otherwise, submit detailed description of methods which will be used for disposing of radioactive wastes and estimates of the type and amount of activity involved. See Sec. C1.0 of Env. Rpt.
16. (a) Survey Program. Describe the surveys to be made to determine if radiation hazards exist in a facility in which radioactive material is used or stored.
(b) Records Management Program. Records keeping and reviewing records of surveys, material inventories, personnel exposures, etc. See Sec. C8.0 and Appendices G, H & I of the Environmental Report.
- 17.

CERTIFICATE

(This item must be completed by the applicant)

The applicant and any official executing this certificate on behalf of the applicant named in Item 1, certify that this application is prepared in conformity with the New Mexico Radiation Protection Regulations, Part 3, Licensing, and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.

SIGNATURE OF APPLICANT NAMED IN ITEM 1

DATE December 31, 1981

BY

SIGNATURE OF CERTIFYING OFFICIAL

Vice President, UNC Mining and Milling

TITLE OF CERTIFYING OFFICIAL

State of New Mexico

No. 3096

Pat. 18-130

PATENT FOR STATE LAND

To All to Whom These Presents Shall Come, Greetings:

Whereas, UNITED NUCLEAR CORPORATION, a Delaware Corporation
 of Santa Fe, State of New Mexico,
 has \$ purchased from the

STATE OF NEW MEXICO

according to the provisions of law, the following described tract of land, viz:

LOTS 1, 2, 3, 4, S $\frac{1}{4}$, S $\frac{1}{4}$

of Section 2, Township 16 North, Range 16 West,
 New Mexico Principal Meridian, containing 599.60 acres,
 more or less, according to the government survey thereof, and

Whereas, the said UNITED NUCLEAR CORPORATION, a Delaware Corporation
 has \$ paid to the STATE OF NEW MEXICO, through the State Land Office, the amount of Twenty Nine Thousand
Nine Hundred Eighty and No/100 ----- Dollars (\$29,980.00), the receipt
 whereof is hereby acknowledged in full.

Now, Therefore, Know Ye, that the STATE OF NEW MEXICO, by its Commissioner of Public Lands, its duly
 authorized officers according to law, does hereby

GRANT, BARGAIN, SELL and CONVEY

unto the said UNITED NUCLEAR CORPORATION, a Delaware Corporation,
 and to its successors and assigns, the said tract of land above described, subject to valid, existing rights, easements, rights of way
 and reservations, and also subject to the right of the Commissioner of Public Lands, which is hereby expressly reserved, to renew
 and extend any existing water easements or leases, and the rents and revenue therefrom, if any, and in addition thereto reserving
 to the State of New Mexico all minerals of whatsoever kind, including oil and gas, in the lands so granted, and to it, or persons
 authorized by it, the right to prospect for, mine, produce and remove the same, and perform any and all acts necessary in connection
 therewith, upon compliance with the conditions and subject to the limitations of the laws of the State of New Mexico, such tract of
 land so conveyed being a portion of the lands granted to the State of New Mexico by the United States, pursuant to the Acts of
 Congress, approved June 21, 1898, and June 20, 1910 and May 28, 1928.

To Have and to Hold, the same, together with all the rights, privileges, immunities and appurtenances of whatsoever
 nature thereunto belonging or in anywise appertaining unto the said UNITED NUCLEAR CORPORATION, a
Delaware Corporation, and to its successors and assigns forever.



In Witness Whereof, the Commissioner of Public Lands of the State of New
 Mexico, has hereunto set his hand and affixed the official seal of the State Land
 Office, this 27th day of
December, A. D. 1968

Stephen B. Long
 COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO

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18 A. 130 PATENT FOR STATE LAND

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