Yellow

Kerr-McGee

Bruce King
GOVERNOR

George S. Goldstein, Ph.D.
SECRETARY

Larry J. Gordon, M.S., M.P.H.
DEPUTY SECRETARY

HEALTH ENVIRONMENT department

STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT DIVISION
P.O. Box 968, Santa Fe, New Mexico 87503
(505) 827-5271

Thomas E. Baca, M.P.H., Director
RADIATION PROTECTION BUREAU

AUGUST 6, 1980

W. J. Shelley, Director
Regulation And Control
Kerr-McGee Nuclear Corporation
Kerr-MCGee Center
Oklahoma City, Oklahoma 73125

RE: License Number SUA-616

Dear Mr. Shelley:

The attached license amendment deletes license condition #33 requiring your uranium mill to comply with the EPA 40 CFR 190 by December 1, 1980. If the Nuclear Regulatory Commission proposed rule requiring compliance with EPA 40 CFR 190 becomes final EID will be required to impose such requirements in New Mexico.

Sincerely,

Gerald W. Stewart

Gerald W. Stewart, Program Manager
Uranium Licensing Section

GWS:jh

Attachment

HEALTH ENVIRONMENT STATE OF NEW MEXICO

ENVIRONMENTAL IMPROVEMENT DIVISION

RADIOACTIVE MATERIAL LICENSE

License Number SUA-616

Kerr-McGee Nuclear Corporation
Kerr-McGee Center
Aklahoma City, Oklahoma 73125

The subject license is amended as follows:

Delete license condition number 33.

For the New Mexico HED Environmental Improvement Division

By Gerald W. Stewart
Gerald W. Stewart, Program Manager
Uranium Licensing Section

Date August 6, 1980

EID 017A Revised 6/80

NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION

RADIOACTIVE MATERIAL LICENSE

License Number SUA-616

Kerr-McGee Nuclear Corp.
P.O. Box 213
Grants, N.M. 87020

The subject license is amended to add the following:

33. The licensee shall comply with the EPA 40 CFR 190 standards effective December 1, 1980: Prospective annual dose limit of 25 millirems to the whole body, 75 millirems to the thyroid, and 25 millirems to any other organ of any member of the public as a result of planned discharges of radioactive material, radon and its daughters excepted. To meet this condition the Division may require the licensee to operate at decreased values from those contained in Part 4, New Mexico Radiation Protection Regulations.

FOR THE NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION

Date June 24, 1980

By _____
Gerald W. Stewart - Program Manager
Uranium Licensing Section

NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION

RADIOACTIVE MATERIAL LICENSE

License Number SUA-616
(Former AEC source materials license now under extended expiration date as provided by Section 3-430.B, New Mexico Radiation Protection Regulations)

Kerr-McGee Corporation
Kerr-McGee Center
Oklahoma City, O.K. 73175

The subject license is amended to add the following condition:

32. Approved waste generating processes and mill tailings management practices are subject to revision in accordance with existing, amended and new statues and regulations.

FOR THE NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION

Date June 2, 1980

By William M. Fleming

William M. Fleming

RPS 17A
Issued 3/73

NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION

RADIOACTIVE MATERIAL LICENSE

License Number SUA-616

30. Evaporation ponds 11-21 inclusive shall be monitored monthly for three months from the date of this amendment and subsequently on a quarterly basis for the following: gross alpha, gross beta, thorium-230, radium-226, lead-210, uranium, selenium, arsenic, molybdenum, barium, chloride, sulfate, total dissolved solids and pH.

31. A contingency plan for responding to an unexpected release of liquid from the ponds shall be prepared within 180 days of the amendment date and submitted to the Division for review and approval. Methods for cleaning up such an accidental release shall be included with special reference to land and stream bed contamination.

FOR THE NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION

Date March 3, 1980

By William M. Fleming

PS 17A
ued 3/73

NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION

RADIOACTIVE MATERIAL LICENSE

License Number SUA-616
(Former AEC source materials license now under extended expiration date as provided by Section 3-430.B, New Mexico Radiation Protection Regulations)

Kerr-McGee Corporation
Kerr-McGee Center
Oklahoma City, OK 73175

In accordance with your letters dated May 29, June 6, July 6, July 25, and November 15, 1979, January 3, 29, February 20, 1980, signed by W. S. Shelley, Director Regulation and Control, the subject license is amended to add conditions:

24. Operation of evaporation ponds 18, 19, 20, and 21 located in Section 4, T13N, R9W, McKinly County, New Mexico, is authorized in accordance with subject letters noted above and the following conditions.

25. Prior to abandonment of ponds 11-21 inclusive, a reclamation plan shall be submitted to the division for review and approval.

26. Operation of ponds 18, 19, 20, and 21 shall be in accordance with an approved discharge plan persuant to New Mexico Water Quality Control Commission Regulations.

27. All evaporation ponds containing mill tailings effluent shall be visually inspected at a frequency of not less than once per day and immediately after heavy rain storms for berm integrity, seepage, berm erosion, liner integrity and liquid level.

28. Evaporation ponds 11-21 inclusive shall each have a highly visible liquid level gage to monitor liquid level and the minimum three-foot freeboard.

29. A flow meter shall be installed in the main tailings line to continuously monitor the discharge of liquid to the ponds.

FOR THE NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION

te _____ By _____

S 17A
ued 3/73

NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION

RADIOACTIVE MATERIAL LICENSE

License Number SUA-616
(Former AEC source materials license now under extended expiration date as provided by Section 3-430.B, New Mexico Radiation Protection Regulations)

Kerr-McGee Corporation
Kerr-McGee Center
Oklahoma City, Oklahoma 73175

In accordance with letter dated April 4, 1979, signed by W.J. Shelley, Director, Regulation and Control, subject license is amended to add conditions 19, 20 and 21. This license is also amended to add conditions 22 and 23, which are included as standard conditions in the New Mexico Radioactive Materials Licenses.

19. Operation of evaporation ponds 16 and 17 located in Section 4, T13N, R9W, is authorized in accordance with subject letter.

20. Prior to abandonment of ponds 16 and 17 a reclamation plan shall be submitted to the division for review and approval.

21. Operation of ponds 16 and 17 shall be in accordance with an approved discharge plan pursuant to New Mexico Water Quality Control Commission Regulations.

22. The licensee shall comply with Part 4, New Mexico Radiation Protection Regulations.

23. The Division Director or his authorized representative shall be allowed to enter the premises and inspect the radiation related activities of the licensee at all times. Failure of the licensee to admit the director or his authorized representative shall constitute grounds for issurance or an immediate cease and desist order.

FOR THE NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION

Date April 18, 1979

By _____
Gerald W. Stewart
Environmental Scientist III

RPS 17A
Issued 3/73

ENVIRONMENTAL IMPROVEMENT AGENCY
Radiation Protection Section
P.O. Box 2348 - Crown Building
Santa Fe, New Mexico 87503

June 20, 1977

G.D. Milligan
Kerr McGee Nuclear Corp.
Kerr McGee Center
Oklahoma City, OK 73125

Dear Mr. Milligan:

As requested in your letter of Feb. 3, 1977 and as supplemented by Ranchers Exploration and Development Corporation's radioactive materials license application dated June 17, 1977 and by letter dated June 2, 1977 signed by J.E. Cleveland, former AEC Source Materials License Number SUA-616 is hereby amended as follows:

18. This amendment authorized the licensee to transfer its uranium mill tailings to the Ranchers Exploration and Development Corporation's Johnny M Mine at a nominal rate of 8,000 tons of tailings per month. This amendment is subject to the following conditions:

A. Kerr McGee shall make monthly isotopic analysis of the tranferred tailings which shall include total uranium, thorium 230, radium 226, lead 210, Se, Mo, V, and As.

B. Kerr McGee shall take monthly air samples in the tailings loading area and analyze these samples for thorium 230, radium 226, and lead 210.

At the end of three months after beginning the transfer operations, Kerr McGee and the New Mexico Environmental Improvement Agency shall review the above sampled data to determine a measurement program for the remainder of the authorized operation.

All other conditions of this license shall remain the same.

Sincerely,

Alphonso A. Topp, Jr.
Environmental Scientist VII

AAT:PFD:feb

ENVIRONMENTAL IMPROVEMENT AGENCY
Radiation Protection Section
P.O. Box 2348 - Crown Building
Santa Fe, NM 87503

November 23, 1976

G.D. Milligam
Kerr-McGee Nuclear Corporation
Kerr-McGee Center WRONG ZIP
Oklahoma City, OK 87125

Dear Mr. Milligan:

As requested in your addendum of November, 1976 for renewal of former AEC Source Materials License Number SUA-616 is hereby amended as follows:

17. This amendment authorizes operation of evaporation ponds as described in addendum dated November, 1976 to renewal application.

All other conditions of this license shall remain the same.

Sincerely,

Alonso A. Topp, Jr.
Environmental Scientist III

AAT:feb

P.O. Box 2348 - Crown Building
Santa Fe, NM 87503 Phone: 827-5271

Radiation Protection Section

July 1, 1976

G. D. Milligan
Kerr-McGee Nuclear Corporation
Kerr-McGee Center
Oklahoma City, OK 87125

Dear Mr. Milligan:

As requested in your letter of May 4, 1976, as supplemented by Mr. Kemp's letter of May 28, 1976, former AEC Source Materials License Number SUA-516 is hereby amended as follows:

16. This amendement authorizes the operation of a Mine Water Treatment Facility located at section 35T.14N.R.9W McKinley County, New Mexico. The water treatment facility includes an ion exchange plant to remove uranium from mine waters. The radiological effluent monitoring program and the radiological safety program in effect at the Licensee's Ambrosia Lake Facility shall be expanded to include this mine water treatment facility.

All other conditions of this license shall remain the same.

Sincerely,

Alphonso A. Topp, Jr.
Environmental Scientist III

AAT:PFD:fb

Region

DML:MB:DFH
(40-1917)
SUA-616, Amendment No.1

APR 7 1971

Kerr-McGee Corporation
ATTN: Mr. A. T. F. Seale
Senior Vice President
Kerr-McGee Building
Oklahoma City, Oklahoma 73102

Category I : Priority II

Gentlemen:

As requested in your letter of March 19, 1971, Items 8 and 12 of AEC's Source Material License No. SUA-616, dated February 8, 1971, are hereby amended to read as follows:

8. This license authorizes uranium ore processing at a nominal throughput of seven thousand (7,000) tons per day in accordance with the procedures described in the licensee's application dated February 3, 1970, as supplemented March 19, 1971.

12. Changes in the mill circuit and equipment shall be approved in writing by the manager. Maintenance activities shall be approved in writing by the mill shift foreman or his supervisors. During such changes and activities, radiation safety surveys shall be conducted to determine employee exposures to radioactive materials.

All other conditions of this license shall remain the same.

FOR THE ATOMIC ENERGY COMMISSION

ORIGINAL SIGNED BY
JAMES C. MALARO

James C. Malaro, Assistant Chief
Materials Branch
Division of Materials Licensing

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Form AEC-40
(7-61)

UNITED STATES
ATOMIC ENERGY COMMISSION

SOURCE MATERIAL LICENSE

Pursuant to the Atomic Energy Act of 1954, and Title 10, Code of Federal Regulations, Chapter 1, Part 40, "Licensing of Source Material," and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, possess and import the source material designated below; to use such material for the purpose(s) and at the place(s) designated below; and to deliver or transfer such material to persons authorized to receive it in accordance with the regulations in said Part. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954 and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission, now or hereafter in effect, including Title 10, Code of Federal Regulations, Chapter 1, Part 20, "Standards for Protection Against Radiation," and to any conditions specified below.

Licensee	Category 3 License No.; Priority I II
1. Name Kerr-McGee Corporation 2. Address Post Office Box 218 Grants, New Mexico 87020	SUA-516 4. Expiration Date February 28, 1976 5. Docket No. 40-1917
6. Source Material Uranium	7. Maximum quantity of source material which licensee may possess at any one time under this license Unlimited

CONDITIONS

8. Authorized use (Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.)

AMENDED May 1, 1971

This license authorizes uranium ore processing at a nominal throughput of four thousand (4000) tons per day in accordance with the procedures described in the licensee's application dated February 3, 1970.

9. Authorized Place of Use: The licensee's Ambrosia Lake Facility located in McKinley County, New Mexico

For the U. S. Atomic Energy Commission
Original Signed by
James C. Malaro
by Materials Branch

Date FEB 6 1971

Division of Materials Licensing
Washington, D. C. 20545

4508320044 3pp.

License Number SUA-616

MATERIAL LICENSE

Supplementary Sheet

10. The licensee is hereby exempt from the requirements of Section 20.203(e)(2) of 10 CFR 20 for areas within the mill provided all entrances to the mill are conspicuously posted in accordance with Section 20.302(e)(2) and with the words, "Any area within this mill may contain radioactive material."

11. The licensee shall immediately notify the Director, Region IV, Division of Compliance, USAEC, Denver, Colorado, by telephone and telegraph of any failure in an earth dam retention system which results in a release of radioactive material into unrestricted areas. This requirement is in addition to the requirements of 10 CFR 20.

12. Changes in the mill circuit or equipment, including maintenance activities, shall be approved in writing by the Manager or Assistant Manager. During such changes and activities, radiation safety surveys shall be conducted to determine employee exposures to radioactive materials.

AMENDED DEC 7, 1977

13. For the purpose of complying with Section 20.103(b), 10 CFR 20, the limits given in Appendix B, Table I, of this Part may be deemed to apply to exposures to the concentrations for 80 hours in any period of 14 consecutive days. In any period where the number of hours of exposure is less than 80 hours, the limits specified in the Table may be increased proportionately. In any such period where the number of hours of exposure is greater than 80 hours, the limits specified in the Table shall be decreased proportionately.

14. As a minimum, the licensee shall conduct environmental surveys in accordance with the procedures described in Items 7 and 14 of Attachment B of his application dated February 3, 1970.

15. The licensee shall determine that employees leaving work are not contaminated with radioactive materials. When an employee has showered and changed clothes prior to leaving work, he may be assumed to be free of contamination.

For the U. S. Atomic Energy Commission
Original Signed by
James C. Malaro
by Materials Branch

Date FEB 6 1971

Division of Materials Licensing
Washington, D. C. 20545

License Number SUA-616

MATERIAL LICENSE

Supplementary Sheet

16. Pursuant to the provisions of Section 20.103, 10 CFR 20, the licensee, in accordance with the procedures described in his application dated February 3, 1970, and subject to the following conditions, is hereby authorized to make allowance for protective clothing in determing whether an individual is exposed to airborne concentrations of radioactive material in excess of the limits specified in Appendix B, Table I:

A. Hoods other than the Chicago Eye Shield No. 600, BM 1925, Type C are not authorized;

B. An efficiency factor (percent reduction) greater than 90% is not authorized; and

C. The maximum working time for which an efficiency factor may be applied for each employee shall not exceed eight (8) hours per week.

For the U. S. Atomic Energy Commission
Original Signed by
James C. Malaro
by Materials Branch
Division of Materials Licensing
Washington, D. C. 20545

Date FEB 8 1971

NEW MEXICO ENVIRONMENTAL IMPROVEMENT AGENCY

RADIOACTIVE MATERIALS LICENSE

Pursuant to the New Mexico Radiation Protection Act of 1971, and the Radiation Protection Regulations Part 3, and in reliance on statements and representations heretofore made by the licensee designated below, a license is hereby issued authorizing such licensee to transfer, receive, possess and use the radioactive material(s) designated below; and to use such radioactive materials for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, regulations, and orders now or hereafter in effect of the New Mexico Environmental Improvement Agency and to any conditions specified below.

Licensee	3. License number: NM-HOM-SO-00
1. Name: Homestake Mining Company	4. Expiration date: August 31, 1979
2. Address: 650 California Street, San Francisco, California 94108	5. Reference number: SUC-894

6. Radioactive materials (element and mass number)	7. Chemical and/or physical form	8. Maximum quantity licensee may possess at any one time
a. Uranium 234, 235, and 238 in natural abundance.	a. U_3O_8 (64 to 80 percent uranium).	a. 2,500,000 pounds.

CONDITIONS

9. Authorized use. (Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.)

a. Storage only at locations in New Mexico to be reported to the Agency at least ten days in advance of storage.

10. The Radiation Protection Officer for this license shall be reported to the Agency at least ten days in advance of storage.

12. The licensee shall comply with Part 4, New Mexico Radiation Protection Regulations.

13. Except as specifically provided otherwise by this license, the licensee shall possess radioactive material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in application dated August 6, 1974, signed by R. J. Stoehr, Senior Vice President.

Date August 23, 1974

FOR THE NEW MEXICO ENVIRONMENTAL IMPROVEMENT AGENCY

By Alphonso A. Topp, Jr.

Alphonso A. Topp, Jr.
ENVIRONMENTAL SCIENTIST III

RPS 17
Issued 3/73

Bennett Dist I File of License Appl. in my office. B. pc Cert 12-29

NEW MEXICO ENVIRONMENTAL IMPROVEMENT AGENCY

RADIOACTIVE MATERIALS LICENSE

Pursuant to the New Mexico Radiation Protection Act of 1971, and the Radiation Protection Regulations Part 3, and in reliance on statements and representations heretofore made by the licensee designated below, a license is hereby issued authorizing such licensee to transfer, receive, possess and use the radioactive material(s) designated below; and to use such radioactive materials for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, regulations, and orders now or hereafter in effect of the New Mexico Environmental Improvement Agency and to any conditions specified below.

Licensee	3. License number
1. Name Mobil Oil Company Energy Minerals - U.S.	NM-MOB-UL-00
2. Address P.O. Box 5444 Denver, Colorado 80217	4. Expiration date December 26, 1983
	5. Reference number

6. Radioactive materials (element and mass number)	7. Chemical and/or physical form	8. Maximum quantity licensee may possess at any one time
A. All natural radioisotopes encountered in the production of natural uranium.	A. Any required in the production of U_3O_8 slurry.	A. 30,000 lbs. maxium of yellowcake slurry (30% by weight U_3O_8).

CONDITIONS

9. Authorized use. (Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.)

A. For pilot plant in-situ leaching, processing leach solution into yellowcake slurry and distribution to authorized recipients. Pilot plant is located at Mobil Oil Corporation Crownpoint Project Site; SW/4, Section 9, T17N, 13W, N.M.P.M. in McKinley County, New Mexico (approximately 5 miles NW of Crownpoint, NM). Site address is Mobil Oil Corporation, Producing-Operations, P.O. Drawer F, Crownpoint, New Mexico 87313. Except as specifically provided otherwise by the license, the licensee shall comply with all procedures set forth in the Interium Mining and Reclamation Plan for Pilot Testing of In-Situ Uranium Leaching, dated May 1978, supplemented by response to division questions submitted August 18, October 26, and November 9, and letters signed by Mr. D.B. Cooper dated August 24 and 30, Dec. 4 and 7, 1978.

10. The licensee shall comply with Part 4, New Mexico Radiation Protection Regulations.

11. Radioactive material shall only be used by individuals designated in writing by the Radiation Protection Officer, Mr. W.R. Bowman.

NEW MEXICO ENVIRONMENTAL IMPROVEMENT AGENCY

RADIOACTIVE MATERIAL LICENSE

License Number NM-MOB-UL-00

12. The division shall be notified within 48 hours of any migration of the leach field to a monitor well as indicated by a change in leach field excursion monitor parameters as set forth on Page 162, Interim Mining and Reclamation Plan for Pilot Testing of In-Situ Uranium Leaching dated May 1978, and Page 16, Mobil Oil Corporation's August 18, 1978 responses to EID-WPC letters of July 10 and 20, 1978.

13. Aquifer shall be restored when leach operations are completed with the ground water quality consistent with the original conditions and usage. Concentration of radioactive materials in the aquifer shall be reduced to levels consistent with restoration standards accordance with Mobil letter dated August 30, 1978.

14. Mobil Oil Corporation shall furnish the Division a Transportation Accident/ Incident Response Plan for yellowcake slurry shipments from the Crownpoint Project in-situ leaching site. Division approval of the plan is required prior to any shipment from the site.

15. The Division Director or his authorized representatives shall be allowed to enter the premises and inspect the radiation-related activities of the licensee at all times. Failure of the licensee to admit the Director or his authorized representatives shall constitute grounds for issuance of an immedate cease and desist order.

FOR THE NEW MEXICO ENVIRONMENTAL IMPROVEMENT AGENCY

Date December 26, 1978

By Gerald W. Stewart
Gerald W. Stewart
Environmental Scientist III

RPS 17A
Issued 3/73

PRESS RELEASE

Mobil Uranium Leaching Pilot Test

The Mobil Oil Corporation has proposed to the State of New Mexico to conduct a uranium solution extraction pilot test operation at its Crownpoint, N.M. site. The proposed operation would pump a leaching solution into uranium ore, disolving the uranium into the solution and then pump the uranium solution to the surface for treatment. The disolved uranium is removed from the solution, precipitated and packaged as yellowcake slurry for shipment. The solution without the uranium is then recycled through the uranium ore bed in a continuous flow process. The New Mexico Environmental Improvement Division, based on the data submitted by Mobil Oil Corporation, supplemental information requested by EID and independent calculations by EID staff, have concluded that the pilot test operation can be safely accomplished and have issued a Radioactive Materials License to Mobil for this pilot test operation.

40-8911

State of New Mexico
Environmental Improvement Agency
P. O. BOX 2348
SANTA FE, NEW MEXICO 87501

APPLICATION FOR RADIOACTIVE MATERIAL LICENSE

INSTRUCTIONS—Complete Items 1 through 16 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 15. Use supplemental sheets where necessary. Item 16 must be completed on all applications. Mail two copies to: Radiation Protection Section, Box 2348, Santa Fe, New Mexico 87501. Upon approval of this application, the applicant will receive a Radioactive Material License. A Radioactive Material License is issued in accordance with the general requirements contained in the New Mexico Radiation Protection Regulations, Part 3, Licensing and the License is subject to Part 4, Standards for Protection Against Radiation.

1. (a) NAME AND STREET ADDRESS OF APPLICANT (Institution, firm, hospital, person, etc.)

Mobil Oil Corporation
Energy Minerals - U.S.
P. O. Box 5444
Denver, Colorado 80217

Phone (303) 572-2000

1. (b) STREET ADDRESS(ES) AT WHICH A RADIOACTIVE MATERIAL WILL BE USED (If different from 1 (a).)

SW/4, Section 9, T17N, 13W, N.M.P.M., in McKinley County, New Mexico

Phone (505) 786-5620 and (505) 786-5619

2. DEPARTMENT TO USE RADIOACTIVE MATERIAL

Mobil Oil Corporation
Producing - Operations
P. O. Drawer F
Crownpoint
New Mexico 87313

3. PREVIOUS LICENSE NUMBER(S). (If this is an application for renewal of a license, please indicate and give number.)

Radioactive Material Licenses presently held for Texas in situ leach operations:

10-2027
10-2436
10-2486

4. INDIVIDUAL USER(S). (Name and title of individual(s) who will use or directly supervise use of radioactive material. Give training and experience in Items 8 and 9.)

W. R. Bowman
Production Supervisor

5. RADIATION PROTECTION OFFICER (Name of person designated as radiation protection office if other than individual user. Attach resume of his training and experiences as in Items 8 and 9.)

W. R. Bowman
Production Supervisor

Phone (505) 786-5620, (505) 786-5619

6. (a) RADIOACTIVE MATERIAL. (Elements and mass number of each.)	6. (b) CHEMICAL AND/OR PHYSICAL FORM AND MAXIMUM NUMBER OF MILLICURIES OF EACH CHEMICAL AND/OR PHYSICAL FORM THAT YOU WILL POSSESS AT ANY ONE TIME. (If sealed source(s), also state name of manufacturer, model number, number of sources and maximum activity per source.)
Uranium	U_3O_8 as yellowcake slurry 30,000 lbs. (maximum)

7. DESCRIBE PURPOSE FOR WHICH RADIOACTIVE MATERIAL WILL BE USED. (If radioactive material is for "human use," supplement RPS 16A must be completed in lieu of this item. If radicactive material is in the form of a sealed source, include the make and model number of the storage container and/or device in which the source will be stored and/or used.)

To test feasibility of in situ leaching process for Crownpoint project. The produced uranium slurry will be transported to authorized and licensed recipients.

8. INDIVIDUAL USER(S) TRAINING

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, and D	Length of On-the-job Training in A, B, C, and D
W. R. Bowman Production Supervisor BS, Metallurgical Engineering	Univ. of Texas Atlas Minerals Wyoming Minerals	A - 15 mo.	B and C - 6 years. D - 2 mo.

Project organizational chart and qualifications of additional personnel are summarized in Attachments A and B.

9. EXPERIENCE WITH RADIATION. (Actual use of radioisotopes or equivalent experience.)

Isotope	Maximum Amount	Where Experience Was Gained	Duration of Experience	Type of Use
Yellowcake	250,000 lbs.	Bruni and Three Rivers, Texas	1½ years	Pilot & production in situ leach
U ore and yellowcake	2000T/day ore	Moab, Utah	3/4 year	Mill
U ore and yellowcake	3000T/day ore	Grants, NM	3½ years	Mill

10. RADIATION DETECTION INSTRUMENTS. (Use supplemental sheets if necessary.) (Also see Attachment C)

Type	Number Available	Radiation Detected	Sensitivity Range (mr/hr)	Window Thickness (mg/cm²)	Use (Monitoring, surveying, measuring)
See Sections 3.2.4.2.10 and 5.7 of the Interim Mining and Reclamation Plan for Pilot Testing of In Situ Uranium Leaching, Crownpoint Project, McKinley County, New Mexico.					

11. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE.

See Sections 3.2.4 and 5.7 of Interim Mining and Reclamation Plan.

12. FILM BADGES, DOSIMETERS, AND BIO-ASSAY PROCEDURES USED. (For film badges, specify method of calibrating and processing, or name of supplier.)

See Section 5.7 of Interim Mining and Reclamation Plan.

INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS

13. FACILITIES AND EQUIPMENT. Describe laboratory facilities and remote handling equipment, storage containers, shielding, fume hoods, etc. Explanatory sketch of facility is attached. (Circle answer) Yes No See figure 3.1.3-1 and Section 3.1 of Interim Mining and Reclamation Plan.

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 Sections 3.2.4 and 3.2.5 of Interim Mining and Reclamation Plan

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 Section 3.1.3, 3.1.4 and 5.1.7 of Interim Mining and Reclamation Plan.

CERTIFICATE (This item must be completed by applicant)

16. 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.

MOBIL OIL CORPORATION, ENERGY MINERALS - U.S
Applicant Named in Item 1

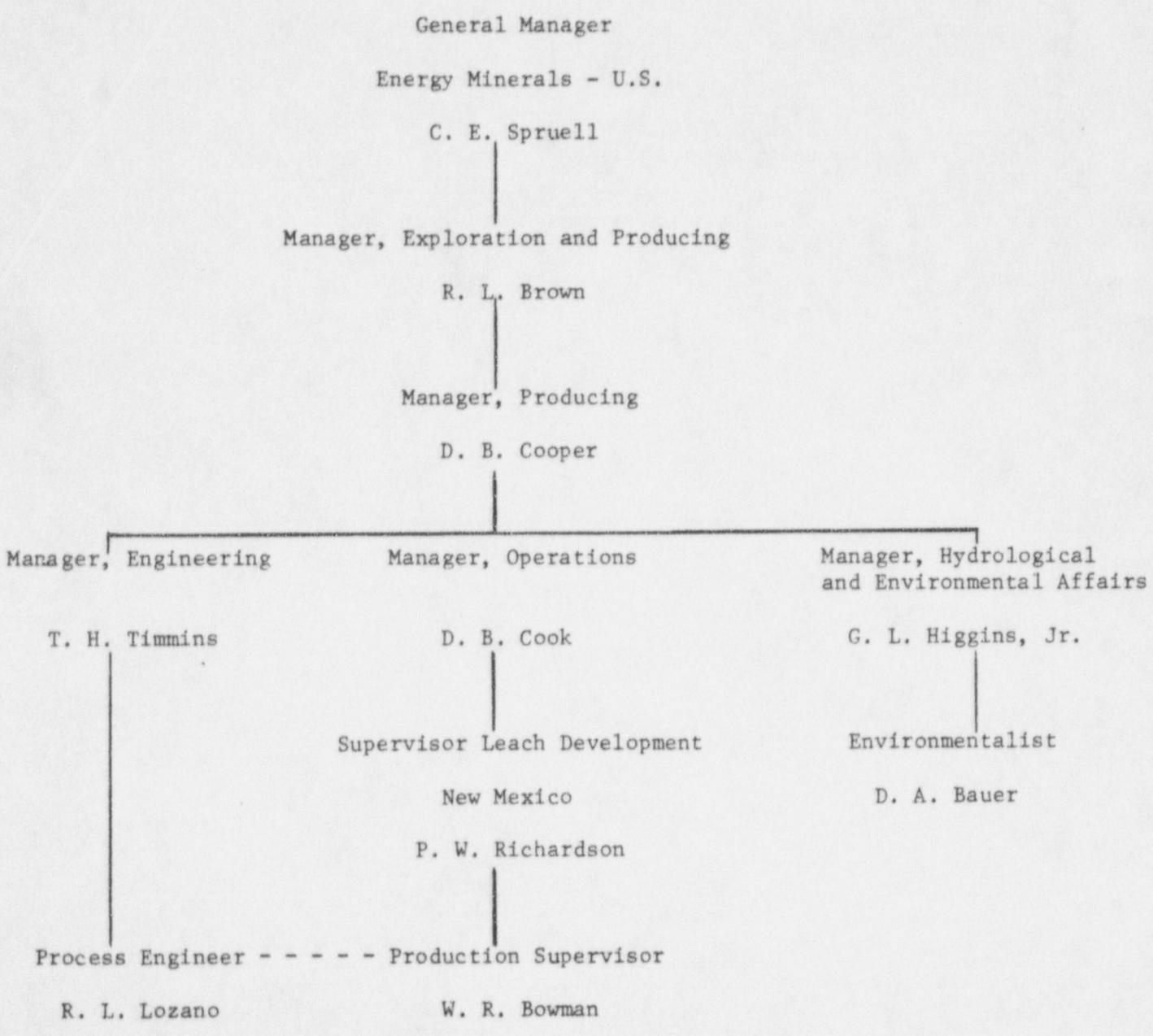
DATE June 12, 1978

By: T. H. Timmins
T. H. Timmins
Manager, Engineering
Title of Certifying Official

BOE 6/12/78

Attachment A

ORGANIZATION CHART



DAB 6/7/78

Attachment B

QUALIFICATIONS

1. W. R. Bowman, Production Supervisor

Received BS Degree in Metallurgical Engineering from the University of Texas in 1972. Mr. Bowman has worked over six years in the uranium mining industry with four yellowcake (U_3O_8) producers. Over two years of Mr. Bowman's experience in the uranium industry has been in construction and operation of both pilot test and commercial in situ uranium leach plants. He was functional supervisor for the field safety and environmental technician at in situ leach plants.He was employed by Mobil in October 1977; he is the Production Supervisor and safety/radiation protection officer for the Crownpoint in situ uranium leach pilot test.

2. R. L. Lozano, Process Engineer

Received BS Degree in Metallurgical Engineering from New Mexico Institute of Mining and Technology in 1975. He has two years experience in in situ uranium production operations, involved in handling, sampling and analysis of radioactive material, particularly uranium. Mr. Lozano has had instruction in DOT shipping procedures for yellowcake and uranium bearing samples. Also, he has taken courses in training and safety for handling of radioactive sources and materials and assisted in development of procedures and instructions for personnel in exposure safety. He has been employed by Mobil since February 1978. Mr. Lozano is the Process Engineer for the Crownpoint in situ uranium leach pilot test.

3. Dr. T. H. Timmins - Manager, Engineering

Dr. Timmins received a BS Degree in Chemical Engineering from the University of Texas in 1960; an MS Degree in 1963; and an SCD in 1967 in Nuclear Engineering from the Massachusetts Institute of Technology. Dr. Timmins has been actively involved in research and development for all of Mobil's in situ uranium leaching projects since 1975. His primary function will be as engineering manager and advisor to the Crownpoint operations.

4. G. L. Higgins, Jr. - Manager, Hydrological and Environmental Affairs

Mr. Higgins received his BS Degree in Geology in 1951 and MS Degree in 1955 from Syracuse University. He has been employed by Mobil since 1974 as Manager of Hydrological and Environmental Affairs and has responsibility for all environmental affairs.

Attachment B

In addition, consultants are available from other divisions of Mobil Oil Corporation to assist the Crownpoint project in the Radiation Control Program. Dr. W. W. Givens is a research associate for Mobil Research and Development in Dallas, Texas. He received a BA and MA from North Texas State University in 1956 and 1957 respectively. He was associated with Mobil's Field Research Lab during 1957 and 1958, where he engaged in research on the application of nuclear techniques in oil exploration. He entered the Rice University graduate school (Department of Physics) in 1958 and received an MA in 1960 and a Ph. D. in 1963. Since returning to Mobil's Field Research Lab in 1962, he has engaged in research in nuclear technology. As part of his duty, Dr. Givens has had the responsibility to teach a safety course to Mobil personnel prior to their handling any radioactive sources.

Attachment C

Mobil holds radioactive material licenses for three in situ uranium leaching plants in Texas, issued by the Texas Department of Health Resources. Copies of these licenses have been included with the transmittal letter and pertinent data is summarized below:

License No.	Date	Plant	Quantity (lbs)
10-2027	April 3, 1975	O'Hern	300,000
10-2436	Dec. 16, 1977	El Mesquite	1,500,000
10-2486	March 6, 1978	Brelum-Piedre Lumbre	1,500,000

STATE OF NEW MEXICO

RADIOLOGICAL EMERGENCY RESPONSE PLAN

Radiation Protection Bureau

Environmental Improvement Division

1. Definition: Radiological Emergency. A radiological emergency is an occurrence which results in loss of control of radioactive materials and which involves an immediate or likely hazard to life, health, or property.

2. Concept. This plan confirms, in writing, informal arrangements made and exercised successfully over the past several years. As a result of the agreement between the U. S. Atomic Energy Commission and the State of New Mexico effective May 1, 1974, establishing New Mexico as an "Agreement State", the Environemntal Improvement Division (EID) was assigned responsibility by the Governor of New Mexico to provide radiological emergency response for minor radiological emergencies. Such responsibility is discharged by the Radiation Protection Bureau (RPB) of EID. For most situations no response involving other than possibly a few local officials would be indicated. This plan does not depend upon activation of New Mexico Emergency Operations Plan 72 or AGONM SOP7, 1 January 1980. which requires a declaration of emergency by the Governor. The United States Government has established the Federal Emergency Management Agency (FEMA) to deal with all kinds of emergencies. FEMA envisages federal agency aid to state governments on request. The U. S. Department of Energy (DOE) plays a major role in implementing FEMA's responsibility for radiological emergencies. DOE's New Mexico office is the Albuquerque Operations Office, which operates the Joint Nuclear Accident Coordinating Center (JNACC). JNACC is capable of deploying radiological emergency response teams on a worldwide basis and as such maintains a continuously manned telephone number (505) 844-4667, to meet its responsibilities. JNACC personnel are familiar with this EID response plan as well as the capability of the state to react. Notification to JNACC of a minor radiological emergency in New Mexico is relayed to appropriate EID

personnel for response within known capabilities. If additional assistance from JNACC is required,it can be requested by EID of JNACC which has the ability to task civilian and military resources. During normal duty hours, the reporting of radiological emergencies, for which an EID response may be indicated, is expedited by calling 827-5271 and asking for the Radiation Protection Bureau. During off-duty hours, calls should be made to the EID 24-hour number 827-2275 or to the New Mexico State Police at 827-2551. EID RPB personnel maintain limited radiation detection instrumentation at their homes to facilitate their responding without having to go to the office for additional equipment in most situations. Examples of such emergencies are:

a spill of radioactive material by a licensee;

a lost radioactive source by a licensee; or

a transportation accident involving radioactive material.

This plan is not designed to react to emergencies involving nuclear weapons or emergencies of large scale involving the radiation exposure to or movement of sizeable populations resulting from a reactor accident. Weapons related and other large scale radiological emergencies should be reported immediately to JNACC at 844-4667.

3. Purpose. This plan provides for the EID response to minor peacetime radiological emergencies in New Mexico. This plan contains:

a. guidance to licensee holding radioactive material;

b. guidance to local authorities in early handling of such emergencies;

c. a notification procedure to obtain technical assistance;

d. provisions for establishment and operation of an EID Radiation Emergency Response Team;

e. provisions for release of public information regarding such emergencies; and

f. a listing of other emergency plans.

4. Guidance to Licensees. All holders of radioactive materials have the legal and moral responsibility to maintain such materials in such a way as to prevent their ex stence from becoming a hazard to life, health, or property. The licensing procedure is designed to cause a review, by holders and the EID, of prudent measures to establish "safe" conditions. Personnel of the RPB are available on a routine basis to licensees and the public in general for consultation on establishment of such "safe" conditions. Out-of-state licensees, acting under reciprocity, and shippers of radioactive materials have the same responsibility of licensees of this State. All licensees of this State have or will be provided with AL Pamphlet 0600-1 "Radiological Accident Assistance" 1975, U.S. Energy Research and Development Administration, Albuquerque, New Mexico, with an insert which reads:

> On May 1, 1974, the State of New Mexico assumed additional duties from the U.S. Atomic Energy Commission (now the U.S. Nuclear Regulatory Commission) regarding control of radioactive material in New Mexico and responses to radioactive emergencies not involving nuclear weapons.
>
> The new duties are discharged in New Mexico by the Radiation Protection Bureau, Environmental Improvement Division, P.O. Box 968, Santa Fe, New Mexico 87503.
>
> The Radiation Protection Bureau, EID endorses this pamphlet for use in New Mexico. It is the policy of this office to utilize all competent assistance in radiological incidents with the result that relief from human suffering be as prompt and effective as possible and that property damage be minimized

by prompt and effective measures regardless of whether the first assistance be federal, military, state or local.

In the event of a radiological incident, much competent help is available to cope with the situation. Call us directly during normal office hours, call our non-duty number at other times, call the New Mexico State Police at any time, call the JNACC, or call the nearest military installation. We all stand together in emergencies to help you.

EID Duty Hours	827-5271
EID Non-duty Hours	827-2275
NM State Police	827-2551
JNACC	264-4667

5. Guidance to Local officials. Appropriate distribution of the following pamphlets with an insert giving the EID telephone number has or will be accomplished.

   a. DOE/EV - 0017 (Oct 78) "Emergency Handling of Radiation Accident Cases-Physicians", U. S. DOE.

   b. DOE/EV - 0018 (Oct 78) "Emergency Handling of Radiation Accident Cases-Nurses", U. S. DOE.

   c. DOE/EV - 0019 (Oct 78) "Emergency Handling of Radiation Accident Cases-Hospital Administrators", U. S. DOE.

   d. DOE/EV - 0020 (Oct 78) "Emergency Handling of Radiation Accident Cases-Ambulance-Rescue Squads", U. S. DOE.

   e. DOE/EV - 0021 (Oct 78) "Emergency Handling of Radiation Accident Cases-Police", U. S. DOE.

   f. DOE/EV - 0022 (Oct 78) "Emergency Handling of Radiation Accident Cases-Sheriffs", U. S. DOE.

6. Notification Procedure for Radiological Emergency Assistance.

a. Ascertain as much information as possible on the accident data sheet below (this is identical with page 8, Appendix A of APO pamphlet 0600-1).

b. Notify by telephone one of the following:

(1) EID during office hours 827-5271, ask for Radiation.

EID during non-duty hours 827-2275

(2) New Mexico State Police 827-2551. Ask that EID Radiation personnel call back.

(3) JNACC 264-4667 (call first, if nuclear weapons related).

7. Provision for Establishment and Operations of an EID Radiation Emergency Response Team:

a. An EID Radiological Emergency Response Team is established in the Radiation Protection Bureau (RPB). All professional personnel in the Bureau are available on call, 24 hours a day, for such duty. Such duty may include life-saving emergency measures normally classified as "hazardous duty".

b. All RPB personnel are expected to be able to receive by telephone the information on the accident data sheet.

c. The senior person in the RPB at the time of the call will decide what response is indicated. He will alert and brief the persons to be dispatched to the emergency. He will make arrangements for communication of reports from personnel in the field.

d. If the call occurs during off duty hours the first person to receive the call alerts other members of the RPB.

e. A Standard Operating Procedure (SOP) will be established for the RPB and will contain as a minimum:

(1) Telephone directory of RPB personnel.

(2) Telephone directory for organizations and persons who may assist.

(3) Individual equipment list of equipment to be maintained at homes of individuals.

(4) Equipment list for RPB office equipment including maintenance and calibration responsibilities.

(5) Radiological Emergency Response Team Procedures to include:

(a) monitoring instructions;

(b) decontamination instructions; and

(c) recommended emergency exposure guides.

8. Public Information Releases

In the event of a radiological emergency, the Radiological Emergency Response may be requested by the media for information regarding the emergency to members of the general public by means of a press release. Other team members should refer informational requests made in the field to the Team Captain. Final press releases will be made by the Central Office. Possible incidents that may require press releases are:

a. Loss of radioactive material source;

b. transportation accident;

c. nuclear facility release, or

d. human radiological exposure.

Examples of typical press releases during these occurrences are included below:

a. Loss of radioactive material source:

The Environmental Improvement Division said today that a _____ (description of source, i.e., curies, material and sealed or unsealed) was lost _____ (approximate time, date or period) at _____ (location; e.g., hospital facility) during

shipment from _____ to _____ etc. The source is about the size of a _____ (e.g., aspirin tablet, dime, quarter, golf ball, etc.). It is _____ inches long and _____ inches in diamter.

If found, the source should not be handled. Advise the nearest police authorities or call _____. There is no immediate health risk to individuals not handling or not carrying the source (for extended periods of time). The Environmental Improvement Division Radiological Emergency Response Team has been dispatched to the scene of the loss and are now searching for the _____ source with radiation detection instruments.

b. Transportation Accident

The Environmental Improvement Division said today that a _____ (e.g., railroad, truck, airplane, etc.) carrying a shipment of radioactive material was involved in an accident at _____ (location) at _____ (time) on _____ (day). The shipment contained _____ (i.e., curies, material and sealed or unsealed).

Alternate No. 1

No explosion or fire resulted from the accident and the radioactive source(s) were not damaged. The Environmental Improvement Division Radiological Emergency Response Team has been dispatched to the site of the accident and reports that on the basis of measurements taken, no radioactive material has been released from the containers and that there is no hazard to the public.

Alternate No. 2

The fire or explosion which followed the accident caused some release of (the radioactive material) in the form of a fine dust near the scene of the accident and downwind. This would not result in a health hazard to anyone unless sufficient quantities of the dust were taken into the body by breathing or swallowing. There is little likelihood that anyone has breathed or swallowed enough of the dust to constitute a health problem.

The Environmental Improvement Division Radiological Emergency Response Team has been dispatched to the scene of the accident and reports that on the basis of their measurements there is no current health hazard to people in the area. In order to avoid unnecessary radioactive contamination, however, all persons, to the extent practical, should avoid the area of the accident. The Environmental Improvement Division will advise on the extent of any decontamination program required.

c. Nuclear Facility Release

The Environmental Improvement Division said today that the _____(name of the facility) released_____curies of radioactive material to the atmosphere (or_____River) during an accident which occurred at _____(time) today. The Environmental Improvement Division Radiological Emergency Response Team was immediately dispatched to the_____ (facility) site and is currently making radiological measurements and assessing the extent of environmental contamination.

Alternate No. 1

The Environmental Improvement Division advises persons living in the vicinity of the facility in_____(counties) and_____(towns

and cities) that there is no need for concern. The amount of material released does not constitute a health hazard to any individual which requires protection action. Further advisory bulletins on the incident will be released as information becomes available.

Alternate No. 2

The New Mexico State Police have temporarily relocated several families living adjacent to the facility site as a precautionary measure. The Environmental Improvement Division advises that there is no direct health hazard to any other individuals in the vicinity. Persons should, however, avoid the area in and around the_____ facility, especially_____(townships, highways, etc.).

Dairy farms in_____(counties) have been advised by the_____to place their cattle on stored feed to avoid unnecessary contamination of the milk supply. Representatives of the Environmental Improvement Division will conduct a continuing surveillance of those dairies affected to ensure the milk supply's purity. Those farmers in the affected area unable to put their cows on stored feed are advised to call the Environmental Improvement Division, and are cautioned to avoid drinking the milk until measurements have been made by the Environmental Improvement Division. Further advisory bulletins will be released as information becomes available.

d. Human Radiological Exposure

The Environmental Improvement Division said today that an/several individual(s) were accidentally (exposed to_____levels of radiation) or contaminated with _____radioactive material) at the _____facility. The individual(s) were taken to_____ (medical facility) where they_____(were decontaminated and/or _____(are being treated). Their condition has been reported as being_____. Preliminary estimates by the Environmental Improvement Division Radiological Emergency Response Team confirm the extent of _____(exposure, dose, or contamination) reported. The Environmental Improvement Division advises that the accident does not pose a hazard to any other individuals.

9. Other Emergency Plans

This is a list of radiological emergency plans of other governmental agencies that may be required to provide support beyond the capability of the EID Radiation Emergency Response Team:

a. Federal Response Plan for Peacetime Nuclear Emergencies, April 1977, General Services Administration, Federal Preparedness Agency (with Annexes I and IIC.

b. Energy Research & Development Administration - Radiological Assistance Plan, July 1977 (ERDA-60).

c. ALO Interagency Radiological Assistance Plan, March 1976, Albuquerque Operations Office, ERDA (AL PAMPHLET-0600-3).

d. ALO Radiological Assistance Plan, March 1976, Albuquerque Operations Office, ERDA (AL PAMPHLET-0600-2).

e. New Mexico Emergency Operations Plan, 1972.

f. New Mexico AGONM SOP7, 1 January 1980.

Theodore A. Wolff
Environmental Manager
Radiation Protection Section

APPENDIX A - ACCIDENT DATA SHEET

This accident data sheet is for the purpose of providing the individual initiating the report of a radiological accident with guidance concerning essential elements to be reported. Notification of a radiological accident should contain as much information as possible.

1. PERSON REPORTING ACCIDENT:

   Name_____

   Title_____

   Location_____

   Telephone Number _____

2. DESCRIPTION OF ACCIDENT:

   Type of carrier involved_____

   Extent of damage_____

   Contents exposed_____

3. LOCATION OF ACCIDENT_____

4. LOCATION OF NEAREST AIRPORT_____

5. FIRE OR EXPLOSION INVOLVED_____

6. PERSON OR AGENCY IN CHARGE AT ACCIDENT SCENE_____

   _____

   (Personnel available to assist (State Police, local Fire Department, etc.)

7. EXTENT OF INJURIES TO PERSONNEL_____

8. CONTROL MEASURES TAKEN_____

9. WEATHER CONDITIONS_____

10. PUBLIC INFORMATION ACTIONS TAKEN, IF ANY_____

11. OTHER INFORMATION CONSIDERED PERTINENT_____

STATE OF NEW MEXICO
HEALTH ENVIRONMENT

MEMORANDUM

DATE: 27 Aug 1980

TO: Ted Brough

FROM: Jerry Stewart

SUBJECT: NRC Program Inspection Questions

1. Please Prepare A Draft Response To Questions 50, 52, 53, 54, 55, 56, 57, 58, 60 By Sept. 5, 1980.

2. Please Prepare A Draft Job Description.

We Can Discuss These On Sept. 2, 1980.

DM 031A Issued 6/78

MEMORANDUM

DATE: August 26, 1980

TO: Tom Buhl
Jerry Stewart
Al Topp

FROM: Ted W. Tedwoff

SUBJECT: NRC questions for program review of September 29 - October 3.

Please provide as designated below, answers to questions posed by the NRC to me by September 12.

T. Brough Circled

Tom Buhl	12, 18, 24, 58, 62-65
Jerry Stewart	12, 13, 24, 38, 39, 40, 41, 46, 49, 50, 52, 53, 54, 55, 56, 57, 58, 60, 71
Al Topp	2a, 12, 13, 15, 17, 19, 24, 38, 39, 40, 41-48, 49, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 65, 66-69, 71, 72

12.

ADM 021 Issued 6/78

41. Are timely license renewal procedures still in use?

42. How many agreement radioactive material licenses are in effect? Provide a breakdown by priority categories.

43. How many non-agreement radioactive or radiation licenses are in effect?

44. How many agreement material licensing actions (amendments, renewals and new licenses) were issued since the last program review?

45. How many agreement material "new licenses only" were issued since our last program review?

46. State the number of unusual or very complex licensing actions taken since the last program review and provide a summary of the actions.

47. Identify sources and devices which have been evaluated for distribution since our last review. Have catalogue sheets been issued for each? If not, indicate which ones have not been issued, and what is the planned date for issuance?

48. How many licenses authorizing distribution to general licensees have been issued since our last program review? Provide names, license number, and date of submittal to NRC.

49. How many pre-licensing visits were made since the last program review?

50. Are copies of licenses, licensing documents and all pertinent back-up material for the license on file in the Grants Office? (yes)

51. Is the Radiation Protection Section now requiring out of State licenses to submit a full set of operating and emergency procedures?

52. Does the staff continue to dispatch enforcement letters within one week following inspection? For Mills our aim is 1 month.

53. Is the time period allowed for licensees to respond to the enforcement letter still 20 days? working days.

54. Has the inspection priority system and frequency of inspections changed since the last review? If so, please supply an update copy of the inspection priority system.

Mills are Cat I
pre-op. inspection 30-45 days before operation
1st mill inspection within 6 mos; 6 mo. after that

55. State the number of inspections made since the last program review. Indicate the numbers inspected for each of your priority categories.

56. State the number of inspections overdue based on the state's priority system. List by priorities. Also identify the number of months overdue for all overdue. If you find it helpful, one possible way of displaying the information would be as shown in the suggested table:

6 mo inspections addressed to follow up. or special technical issues. Special visits are arranged for special issues as required.

Priority	I (1 yr ± 3)	II	III	IV	V
Months overdue	one, 1 mo. overdue	etc.	etc.		
Months overdue	two, 2 mo. overdue				
Months overdue	four, 3 mo. overdue				

[Paramount inspections this yr, reflecting calendar]

57. State the number of supervisory accompaniments made since the last review and identify the individuals.

1 Jerry Stewart

58. State the number of investigations made since the last review, and identify the investigations and indicate the status of the reviews, i.e., open, closed, pending enforcement action, etc.

→ overexposures (spill at mobile), [Kerr McGee line break] SOH10 Tailings,

59. Has the State identified medical consultants that the State can rely on to evaluate the medical effects of internal and external radiation exposure, e.g., inhalation or ingestion of yellowcake.

VCC tailings pump system

60. How many equipment failures occurred due to generic faults? Identify such incidents or failures.

(Tailings lines) failures. [Close - leakage from sump due to bad tailing drain]

61. Provide an updated equipment inventory list for equipment used for conducting inspections and performing surveys.

62. Does the State Laboratory Division continue to analyze your radiological samples collected from the agreement material program?

63. What success has the Radiation Protection Section achieved in overcoming difficulties in getting adequate laboratory support for the materials program?

64. What procedures has the Radiation Protection Section established to verify quality of work performed by the State Laboratory Division?

65. Have your calibration procedure for field instrumentation changed from that reported last year, i.e., calibrated by Eberline Instrument Company at six month intervals.

X-RAY AND ACCELERATORS

66. How many radiation producing machines have been registered in the State? How many accelerators?

67. How many of the radiation producing machines were inspected since the last review? How many were accelerators?

68. Does the State license uranium used as shielding in accelerators?

69. How many licenses were issued for the use of radium?

Teton

NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION

RADIOACTIVE MATERIAL LICENSE

Pursuant to the New Mexico Radiation Protection Act of 1971, and the Radiation Protection Regulations Part 3, and in reliance on statements and representations heretofore made by the licensee designated below, a license is hereby issued authorizing such licensee to transfer, receive, possess and use the radioactive material(s) designated below; and to use such radioactive materials for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, regulations, and orders now or hereafter in effect of the New Mexico Environmental Improvement Agency and to any conditions specified below.

Licensee

1. Name UNC Teton Exploration Drilling, Inc.

2. Address 3030 S. Energy Lane
Casper, WY 82601

3. License number
NM-TET-PP-00

4. Expiration date
April 30, 1981

5. Reference number

6. Radioactive materials (element and mass number)	7. Chemical and/or physical form	8. Maximum quantity licensee may possess at any one time
A. All natural radioisotopes encountered in the production of natural uranium.	A. Any required in the production of U_3O_8 slurry.	A. 12 lbs. maximum of yellowcake slurry.

CONDITIONS

9. Authorized use. (Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.)

A. Operation of a research and development push-pull solution extraction test located at NE 1/4 of SW 1/4 Section 13, T16N, R17W in McKinley County, New Mexico. Test by-product material to be disposed at the UNC Churchrock or UN-HP tailings impoundment. Except as specifically provided by this license, the licensee shall possess and use radioactive material described in Items 6, 7, 8, and 9 of this license in accordance with statements, representations and procedures contained in a licensee's application to the Division dated October 17, 1979, April 16, and March 21, 1980 supplemented by letters dated December 4, 1979 from T. G. Melrose to Gerald Stewart; letters dated April 23, 1980, from Todd Miller to Richard Appel; and letters dated April 14, 1980 from Edward Kennedy to Richard Appel and from Tom Baca to Richard Appel dated April 24, 1980.

NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION

RADIOACTIVE MATERIAL LICENSE

License Number NM-TET-PP-00

10. Radioactive material shall be used by individuals designated in writing by the licensee's Radiation Protection Officer, Paul Hidenbrand.

11. The Division Director or his authorized representative shall be allowed to enter the premises and inspect the radiation related activities of the license at all times. Failure of the licensee to admit the Director or his authorized representative shall constitute grounds for issuance of an immediate cease and desist order.

12. In the event of a radioactive spill, the Division is to be notified immediately. The concurrence of the Division is required for final soil decontamination level.

13. When leach operations are completed, the aquifer shall be restored to the groundwater quality consistent with the original conditions and usage.

14. Operations shall be conducted in accordance with the New Mexico Water Quality Control Commission Regulations as administered by the New Mexico Environmental Improvement Division.

FOR THE NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION

Date April 30, 1980

By _____

RPS 17A
Issued 3/73