

## APPLICATION FOR MATERIAL LICENSE

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

### FEDERAL AGENCIES FILE APPLICATIONS WITH:

U.S. NUCLEAR REGULATORY COMMISSION  
DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSS  
WASHINGTON, DC 20555

### ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS, IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND,  
MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA,  
RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION I  
NUCLEAR MATERIAL SECTION B  
831 PARK AVENUE  
KING OF PRUSSIA, PA 19406

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA,  
PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR  
WEST VIRGINIA, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION II  
MATERIAL RADIATION PROTECTION SECTION  
101 MARIE'TTA STREET, SUITE 2900  
ATLANTA, GA 30323

### IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR  
WISCONSIN, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION III  
MATERIALS LICENSING SECTION  
799 ROOSEVELT ROAD  
GLEN ELLYN, IL 60137

ARKANSAS, COLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA,  
NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH,  
OR WYOMING, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION IV  
MATERIAL RADIATION PROTECTION SECTION  
611 RYAN PLAZA DRIVE, SUITE 1000  
ARLINGTON, TX 76011

ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON,  
AND U.S. TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS  
TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION V  
MATERIAL RADIATION PROTECTION SECTION  
1450 MARIA LANE, SUITE 210  
WALNUT CREEK, CA 94596

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTION.

### 1. THIS IS AN APPLICATION FOR (Check appropriate item)

- ☐ A. NEW LICENSE  
☐ B. AMENDMENT TO LICENSE NUMBER \_\_\_\_\_  
☒ C. RENEWAL OF LICENSE NUMBER 49-19930-01

### 2. NAME AND MAILING ADDRESS OF APPLICANT (Include Zip Code)

Mobil Coal Producing Inc.  
Box 3021  
Gillette, WY 82716

### 3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED.

Mobil Coal Producing Inc.  
Caballo Rojo Mine  
22 miles Southeast of Gillette  
Gillette, WY 82716

### 4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

R. J. Kovacich

### TELEPHONE NUMBER

(307) 687-0820

SUBMIT ITEMS 5 THROUGH 11 ON 8 1/2 x 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

### 5. RADIOACTIVE MATERIAL

a. Element and mass number, b. chemical and/or physical form, and c. maximum amount  
which will be possessed at any one time.

### 6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

### 7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE.

### 8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

### 9. FACILITIES AND EQUIPMENT.

### 10. RADIATION SAFETY PROGRAM.

### 11. WASTE MANAGEMENT.

### 12. LICENSEE FEES (See 10 CFR 170 and Section 170.31)

FEE CATEGORY Renewal AMOUNT  
ENCLOSED \$ 150

### 13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS  
PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, AND 40 AND THAT ALL INFORMATION CONTAINED HEREIN,  
IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948, 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION  
TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

### SIGNATURE OF CERTIFYING OFFICER

### TYPED/PRINTED NAME

### TITLE

### DATE

*R. J. Kovacich*

R. J. Kovacich

Mine Manager

11/10/86

### 14. VOLUNTARY ECONOMIC DATA

#### a. ANNUAL RECEIPTS

<input checked="" type="checkbox"/> <\$250K	\$1M-3.5M
<input type="checkbox"/> \$250K-500K	\$3.5M-7M
<input type="checkbox"/> \$500K-750K	\$7M-10M
<input type="checkbox"/> \$750K-1M	>\$10M

#### b. NUMBER OF EMPLOYEES (Total for entire facility excluding outside contractors)

#### c. NUMBER OF BEDS

d. WOULD YOU BE WILLING TO FURNISH COST INFORMATION (Dollar and/or staff hours)  
ON THE ECONOMIC IMPACT OF CURRENT NRC REGULATIONS OR ANY FUTURE  
PROPOSED NRC REGULATIONS THAT MAY AFFECT YOU? (NRC regulations permit  
it to protect confidential commercial or financial—proprietary—information furnished to  
the agency in confidence)

☐ YES

☐ NO

### FOR NRC USE ONLY

#### TYPE OF FEE

#### FEE LOG

#### FEE CATEGORY

#### COMMENTS

#### APPROVED BY

#### AMOUNT RECEIVED

#### CHECK NUMBER

8904260455 880408  
REG4 LIC30  
49-19930-01 PNU

#### DATE

## PRIVACY ACT STATEMENT

Pursuant to 5 U.S.C. 552a(e)(3), enacted into law by section 3 of the Privacy Act of 1974 (Public Law 93-579), the following statement is furnished to individuals who supply information to the Nuclear Regulatory Commission on NRC Form 313. This information is maintained in a system of records designated as NRC-3 and described at 40 Federal Register 45334 (October 1, 1975).

1. **AUTHORITY:** Sections 81 and 161(b) of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2111 and 2201(b)).
2. **PRINCIPAL PURPOSE(S):** The information is evaluated by the NRC staff pursuant to the criteria set forth in 10 CFR Parts 30, 32, 33, 34, 35 and 40 to determine whether the application meets the requirements of the Atomic Energy Act of 1954, as amended, and the Commission's regulations, for the issuance of a radioactive material license or amendment thereof.
3. **ROUTINE USES:** The information may be (a) provided to State health departments for their information and use; and (b) provided to Federal, State, and local health officials and other persons in the event of incident or exposure, for their information, investigation, and protection of the public health and safety. The information may also be disclosed to appropriate Federal, State, and local agencies in the event that the information indicates a violation or potential violation of law and in the course of an administrative or judicial proceeding. In addition, this information may be transferred to an appropriate Federal, State, or local agency to the extent relevant and necessary for an NRC decision or to an appropriate Federal agency to the extent relevant and necessary for that agency's decision about you.
4. **WHETHER DISCLOSURE IS MANDATORY OR VOLUNTARY AND EFFECT ON INDIVIDUAL OF NOT PROVIDING INFORMATION:** Disclosure of the requested information is voluntary. If the requested information is not furnished, however, the application for radioactive material license, or amendment thereof, will not be processed. A request that information be held from public inspection must be in accordance with the provisions of 10 CFR 2.790. Withholding from public inspection shall not affect the right, if any, of persons properly and directly concerned need to inspect the document.
5. **SYSTEM MANAGER(S) AND ADDRESS:** U.S. Nuclear Regulatory Commission  
Director, Division of Fuel Cycle and Material Safety  
Office of Nuclear Material Safety and Safeguards  
Washington, D.C. 20555

## ATTACHMENT

### Item 5: Radioactive Material

The radioactive material in use at the Caballo Rojo Mine is CS-137. The material is used in a Texas Nuclear Model 570-57157C sealed source. The source holder is a Texas Nuclear Model 5192. The maximum amount of radioactive material used will be 100 millicuries.

### Item 6: Use of Licensed Material

The Texas Nuclear Model 5192 device will be used to monitor the material level in the apron feeder located in the coal crushing facility of Mobil Coal Producing Inc.'s Caballo Rojo Mine. The feeder is used to supply coal from the dump hopper above the feeder to the coal crusher below. A level control is necessary to maintain a quantity of coal in the apron feeder to minimize the effects of impact of the coal on the interior of the apron feeder when the mine haulage units empty from above. The device will disengage the feeder drive mechanism when the desired level of coal is reached.

Under normal operating conditions no person will be directly exposed to the collimated beam of radiation. The feeder itself is totally enclosed with the exception of where the coal enters from the hopper and exits into the crusher. No permanent means of accessing the hopper or gaining access from below exist.

Hatch covers which do provide access are secured and will only be opened in accordance with the precautions outlined in Item 10.

### Item 7: Individuals Responsible for Radiation Safety Program and Their Training and Experience

The following individuals will directly supervise the use of the licensed material:

NAME	TITLE
1. B. D. Hanson	Mine Superintendent
2. R. E. Ruoho	General Electrical Supervisor
3. R. R. Stephens	Preparation Plant Supervisor
4. M. J. Levar	Preparation Plant Supervisor
5. D. L. Humphries	Electrical Supervisor

Mr. R. A. Morris, Safety Director, is identified as the Radiation Protection Officer at the Caballo Rojo Mine.

Training details are outlined in Item 8.



Item 8: Training for Individuals Working In or Frequenting Restricted Areas

As outlined in Items 6 and 10, under operating conditions, no person will be exposed to the collimated beam of radiation; and no permanent means of access to the beam exist.

The manufacturer furnished detailed instructions on the proper precautions to be taken in utilizing this device. Specific items of design detail, shutter operation, beam geometry, radiation levels, and regulatory compliance were presented by trained personnel of Texas Nuclear at the time the device was installed in 1982.

Any maintenance, relocation, or removal of this device will be undertaken by Texas Nuclear personnel.

Item 9: Facilities and Equipment

A description of the location of the gauge is contained in Item 5: Use of Licensed Material.

No severe environmental conditions exist which could affect the integrity of the shielding or the source. All environmental factors were presented to the manufacturer prior to specifying this device.

Any repair, relocation, or removal of the source holder will be done by Texas Nuclear personnel.

In the event some catastrophic emergency occurs and this device may be involved, Mobil Coal Producing Inc. will notify Texas Nuclear and the NRC; and an appropriate plan of action will be developed.

The following individual will be responsible for contacting both the NRC and Texas Nuclear.

- R. J. Kovacich      (307) 687-0820 (Work)  
                                 (307) 682-7304 (Home)

Item 10: Radiation Safety Program

A. Based upon working conditions and physical accessibility, we estimate that one person would routinely be within three feet of this device one hour per week.

Our personnel have been instructed as to the size and location of the beam, the radiation levels in the beam, and have been cautioned that unless the shutter is CLOSED these radiation levels are significant. This device has the capability of producing high level radiation between the source holder and the detector. However, the combination of:

- i. during normal operation no individual has access to the vessel. The contained material and operating parameters

preclude the access of any major portion of the body to the radiation field. Only authorized personnel are allowed to change the operating parameters and/or authorize access;

- ii. personnel are instructed to CLOSE the gauge shutter when the operation is stopped and/or work must be done in any vessel being monitored;
- iii. if the operation is to be shut down for any extended period of time or extensive work is to be done on the vessel, the radiation safety officer will be notified to insure that the shutter is locked in the CLOSED position and remains locked during this period of time;
- iv. signs displaying "Caution Radiation" and the standard symbol stating that the shutter must be CLOSED and the radiation safety office notified prior to entering the vessel being monitored are posted;
- v. the general inaccessibility of this device;

should be sufficient to prevent unauthorized entry to the radiation beam and preclude any unintentional radiation exposure.

- B. Texas Nuclear personnel performed the initial radiation survey and leak testing at the time of installation. Additionally, our personnel received specific training at the time of installation. This training included construction features of the device, source integrity, beam geometry, and intensity and operating details of the device. Any precautionary steps like the addition of shielding, signs, or precautions to be taken will be covered in accordance with Texas Nuclear installation procedures and training.
- C. The source holder will be tested for source integrity: Model 5192 at least once every three years. Leak testing will be performed by Texas Nuclear Procedure QT/1k.
- D. In the event some catastrophic emergency occurs and this device may be involved, we will notify Texas Nuclear and await further instruction.

Any repair, relocation, or removal of the source holder will be done by Texas Nuclear personnel. Texas Nuclear's address is:

Texas Nuclear  
Box 9267  
Austin, TX 78766  
USNRC License No. 42-01485-04

No personnel monitoring devices need be utilized due to the use of this device. The source holder is designed such that radiation levels will be less than 5mR/h one foot from any accessible surface at the maximum source loading for the device with the

461302

device in the OFF position. With the shutter open, a collimated beam of radiation exists between the source head and detector across the vessel being monitored.

Item 11: Waste Management

No waste disposal is involved. In the event that the gauge is damaged or its use is discontinued, Texas Nuclear will be notified for removal; and the gauge will be returned for repair or disposal of the source material.



**Mobil**

Mining & Coal Division

Box 3021

Gillette, Wyoming 82716

RECEIVED

JAN 6 AM 11 07

U.S. NUCLEAR REG.  
COMMISSION  
MAIL SECTION

December 29, 1981

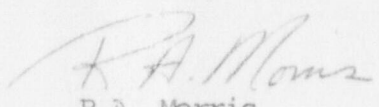
Division of Fuel Cycle & Material Safety  
Office of Nuclear Safety & Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

To whom it concerns:

Enclosed are the required copies of an "Application for Byproduct Materials License - Industrial" and a check in the amount required to apply for a new license (\$110.00).

Prompt processing of the application will assist us in preparing to operate our facilities and will be appreciated. Please advise if additional information is required.

Sincerely,

  
R.A. Morris  
Safety Director

RAM/kmz

Enclosure

cc: C.N. Futch - Gillette  
D.R. Wage - Gillette  
D.A. Wagner - Gillette

COPIES SENT TO OFF. OF  
INSPECTION AND ENFORCEMENT

09972

FORM NRC-313 I (3-80) 10 CFR 30		U.S. NUCLEAR REGULATORY COMMISSION  1. APPLICATION FOR: <i>(Check and/or complete as appropriate)</i>  <div style="text-align: right; font-size: 1.2em;">03120</div>	
<b>APPLICATION FOR BYPRODUCT MATERIAL LICENSE INDUSTRIAL</b>		XX	a. NEW LICENSE  b. AMENDMENT TO: LICENSE NUMBER <div style="text-align: right; font-size: 1.2em;">30-19558</div> c. RENEWAL OF: LICENSE NUMBER <div style="text-align: right; font-size: 1.2em;">646 19930</div>
See attached instructions for details.  Completed applications are filed in duplicate with the Division of Fuel Cycle and Material Safety, Office of Nuclear Material Safety, and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555 or applications may be filed in person at the Commission's office at 1717 H Street, NW, Washington, D. C. or 7915 Eastern Avenue, Silver Spring, Maryland.			
2. APPLICANT'S NAME <i>(Institution, firm, person, etc.)</i>  Mobil Mining and Coal  TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION (307) 682-0205		3. NAME AND TITLE OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION C. Nelson Futch, Mine Manager  TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION (307) 682-0205 extension 220	
4. APPLICANT'S MAILING ADDRESS <i>(Include Zip Code)</i> <i>(Address to which NRC correspondence, notices, bulletins, etc., should be sent.)</i>  Caballo Rojo Mine Box 3021 Gillette, Wyoming 82716		5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED <i>(Include Zip Code)</i>  Caballo Rojo Mine Box 3021 Gillette, Wyoming 82716	
(IF MORE SPACE IS NEEDED FOR ANY ITEM, USE ADDITIONAL PROPERLY KEYED PAGES.)			
6. INDIVIDUAL(S) WHO WILL USE OR DIRECTLY SUPERVISE THE USE OF LICENSED MATERIAL <i>(See Items 16 and 17 for required training and experience of each individual named below)</i>			
FULL NAME		TITLE	
a. Douglas A. Wagner		Mine Superintendent	
b. Robert J. Kovacich		Preparation Plant Superintendent	
c. Ray Ruoho		General Electrical Supervisor	
7. RADIATION PROTECTION OFFICER  Robert A. Morris		Attach a resume of person's training and experience as outlined in Items 16 and 17 and describe his responsibilities under Item 15.  Safety Director	
8. LICENSED MATERIAL			
LINE NO.	ELEMENT AND MASS NUMBER	CHEMICAL AND/OR PHYSICAL FORM	NAME OF MANUFACTURER AND MODEL NUMBER <i>(If Sealed Source)</i>
D	A	B	C
(1)	CS-137	Sealed	Texas Nuclear Model 570-57157c
(2)			
(3)			
(4)			
DESCRIBE USE OF LICENSED MATERIAL E			MAXIMUM NUMBER OF MILLICURIES AND/OR SEALED SOURCES AND MAXIMUM ACTI- VITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME D
(1) SEE ATTACHED SHEET			Date: 1/11/82 Log: Jan R. G. L. By: Brown Orig. To: Action Co.: 1/2/82
(2)			
(3)			
(4)			



# STORAGE OF SEALED SOURCES

LINE NO.	CONTAINER AND/OR DEVICE IN WHICH EACH SEALED SOURCE WILL BE STORED OR USED. A.	NAME OF MANUFACTURER B.	MODEL NUMBER C.
(1)	One (1) each source holder	Texas Nuclear	5192
(2)			
(3)	NOTE: The source holder is a complete storage container for the source,		
(4)	both prior and subsequent to installation of the gauge.		

## 10. RADIATION DETECTION INSTRUMENTS

LINE NO.	TYPE OF INSTRUMENT A.	MANUFACTURER'S NAME B.	MODEL NUMBER C.	NUMBER AVAILABLE D.	RADIATION DETECTED (alpha, beta, gamma, neutron) E.	SENSITIVITY RANGE (milliroentgens/hour or counts/minute) F.
(1)	No radiation detection instrumentation is necessary to safely possess					
(2)	or utilize these devices.					
(3)						
(4)						

## 11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10

<input type="checkbox"/> a. CALIBRATED BY SERVICE COMPANY NAME, ADDRESS, AND FREQUENCY  None Required	<input type="checkbox"/> b. CALIBRATED BY APPLICANT Attach a separate sheet describing method, frequency and standards used for calibrating instruments.  None Required
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## 12. PERSONNEL MONITORING DEVICES

TYPE (Check and/or complete as appropriate.) A.	SUPPLIER (Service Company) B.	EXCHANGE FREQUENCY C.
<input type="checkbox"/> (1) FILM BADGE  <input type="checkbox"/> (2) THERMOLUMINESCENCE DOSIMETER (TLD)  <input type="checkbox"/> (3) OTHER (Specify): _____ _____ _____	None Required - see attached sheet	<input type="checkbox"/> MONTHLY  <input type="checkbox"/> QUARTERLY  <input type="checkbox"/> OTHER (Specify): _____ _____ _____

## 13. FACILITIES AND EQUIPMENT (Check where appropriate and attach annotated sketch(es) and description(s).)

<input type="checkbox"/> a. LABORATORY FACILITIES, PLANT FACILITIES, FUME HOODS (Include filtration, if any), ETC. <input type="checkbox"/> b. STORAGE FACILITIES, CONTAINERS, SPECIAL SHIELDING (fixed and/or temporary), ETC. <input type="checkbox"/> c. REMOTE HANDLING TOOLS OR EQUIPMENT, ETC. <input type="checkbox"/> d. RESPIRATORY PROTECTIVE EQUIPMENT, ETC.	Not applicable
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## 14. WASTE DISPOSAL

a NAME OF COMMERCIAL WASTE DISPOSAL SERVICE EMPLOYED SEE ATTACHED SHEET
b IF COMMERCIAL WASTE DISPOSAL SERVICE IS NOT EMPLOYED, SUBMIT A DETAILED DESCRIPTION OF METHODS WHICH WILL BE USED FOR DISPOSING OF RADIOACTIVE WASTES AND ESTIMATES OF THE TYPE AND AMOUNT OF ACTIVITY INVOLVED. IF THE APPLICATION IS FOR SEALED SOURCES AND DEVICES AND THEY WILL BE RETURNED TO THE MANUFACTURER, SO STATE.

# INFORMATION REQUIRED FOR ITEMS 15, 16 AND 17

Describe in detail the information required for Items 15, 16 and 17. Begin each item on a separate page and key to the application as follows:

15. **RADIATION PROTECTION PROGRAM.** Describe the radiation protection program as appropriate for the material to be used including the duties and responsibilities of the Radiation Protection Officer, control measures, bioassay procedures (if needed), day-to-day general safety instruction to be followed, etc. If the application is for sealed source's also submit leak testing procedures, or if leak testing will be performed using a leak test kit, specify manufacturer and model number of the leak test kit.
16. **FORMAL TRAINING IN RADIATION SAFETY.** Attach a resume for each individual named in Items 6 and 7. Describe individual's formal training in the following areas where applicable. Include the name of person or institution providing the training, duration of training, when training was received, etc.
  - a. Principles and practices of radiation protection.
  - b. Radioactivity measurement standardization and monitoring techniques and instruments.
  - c. Mathematics and calculations basic to the use and measurement of radioactivity.
  - d. Biological effects of radiation.
17. **EXPERIENCE.** Attach a resume for each individual named in Items 6 and 7. Describe individual's work experience with radiation, including where experience was obtained. Work experience or on-the-job training should be commensurate with the proposed use. Include list of radioisotopes and maximum activity of each used.

## 18. CERTIFICATE

(This item must be completed by applicant)

The applicant and any official executing this certificate on behalf of the applicant named in Item 2, certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, Part 30, and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.

**WARNING.**—18 U.S.C., Section 1001; Act of June 25, 1948; 62 Stat. 749; makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

a. LICENSE FEE REQUIRED

(See Section 170.31, 10 CFR 170)

b. CERTIFYING OFFICIAL (Signature)

c. NAME (Type or print)

Douglas A. Wagner

(1) LICENSE FEE CATEGORY:

d. TITLE

Mine Superintendent

(2) LICENSE FEE ENCLOSED: \$

110.00

e. DATE

12/23/81

## ATTACHMENT

### 8E: Use of Licensed Material

Texas Nuclear's Model 5192 device will be used to monitor the material level in the apron feeder located in the coal crushing facility of Mobil's Caballo Rojo coal mine. The feeder is used to supply coal from the dump hopper above the feeder to the coal crusher below. A low level control is needed to maintain a quantity of coal in the feeder to minimize the effect of the impact of the coal on the interior surfaces of the feeder when the mine's haulage units empty from above. The device will disengage the feeder drive mechanism when the desired level of coal is reached.

Under normal operating conditions, no person will be directly exposed to the collimated beam of radiation. The feeder is totally enclosed with the exception of where the coal enters from the hopper and exits into the crusher. There is no permanent means of lowering oneself into the hopper or gaining access from below, nor should the need arise. Hatch covers which do provide access to the interior of the feeder are secured in place and access would only be permitted in accordance with the precautions outlined in item 15.

There are no severe environmental conditions that can affect the integrity of the source and shielding. All environmental factors have been presented to the manufacturer for evaluation prior to specifying this device.

### 12A: Personnel Monitoring

No additional personnel monitoring devices need be utilized due to the presence of this gauging device. The source holder is designed such that radiation levels will be less than 5mR/h one foot from any accessible surface at the maximum source loading for the device with the device OFF position. With the shutter open, a collimated beam of radiation exists between the source head and detector traversing the vessel being monitored. It is not likely, when consideration is given to the design of the device, the precautions to be taken itemized in Item 15 and the minimal accessibility, that any individual will receive a radiation exposure in excess of 0.125 rem per calendar quarter.

### 14A: Waste Disposal

No waste disposal is involved. In the event that the gauge is damaged or its use discontinued, we shall notify Texas Nuclear for removal and return the gauge for repair or disposal of the source material.



15: Radiation Protection Program

- A. Based upon working conditions and physical accessibility, we estimate that one person would routinely be within three feet of this device one hour per week.

Our personnel will be instructed as to the size and location of the beam, the radiation levels in the beam and will be cautioned that unless the shutter is CLOSED these radiation levels are significant. This device has the capability of producing high level radiation between the source holder and the detector. However, the combination of:

- i. during normal operation no individual has access to the vessel. The contained material and operating parameters preclude the access of any major portion of the body to the radiation field. Only authorized personnel are allowed to change the operating parameters and/or authorize access;
- ii. personnel are instructed to CLOSE the gauge shutter when the operation is stopped and/or work must be done in any vessel being monitored;
- iii. if the operation is to be shut down for any extended period of time or extensive work is to be done on the vessel, the radiation safety officer will be notified to insure that the shutter is locked in the CLOSED position and remains locked during this period of time;
- iv. signs displaying "Caution Radiation" and the standard symbol stating that the shutter must be CLOSED and the radiation safety officer notified prior to entering the vessel being monitored will be posted at installation;
- v. the general inaccessibility of this device;

should be sufficient to prevent unauthorized entry to the radiation beam and preclude any unintentional radiation exposure.

- B. Texas Nuclear personnel will perform the initial radiation survey and leak testing at the time of installation. Additionally, our personnel will receive specific training at the time of installation. This training will include construction features of the device, source integrity, beam geometry and intensity and operating details of the device. Any precautionary steps like the addition of shielding, signs, or precautions to be taken will be covered at the time in accordance with Texas Nuclear installation procedures and training.

16: Formal Training in Radiation Safety

The manufacturer will furnish us with detailed instruction on the proper precautions to be taken in utilizing this device. Specific items of design detail, shutter operation, beam geometry, radiation levels and regulatory compliance will be presented by trained personnel of Texas Nuclear at the time this device is installed.

15: Radiation Protection Program (continued)

- C. The source holder will be tested for source integrity:  
Model 5192 at least once every three years.  
Leak testing will be performed by Texas Nuclear Procedure  
QT/LK.
- D. In the event some catastrophic emergency occurs and this  
device may be involved, we will notify Texas Nuclear and  
await further instruction.

Any repair, relocation or removal of the source holder will  
be done by Texas Nuclear Personnel.



17: Experience

Our personnel presently have no experience. Refer to item 16 for supplementary information.