JUL 27 1979

FCL1:LOR
(00387)

Kerr-McGee Nuclear Corporation
ATTN: Mr. W. J. Shelley, Director
Regulation & Control
McGee Tower Center
Suite 2204
Oklahoma City, OK 73125

Gentlemen:

Pursuant to your application dated June 15, 1979, enclosed is Amendment No. 07 which amends License No. 35-12636-03 in its entirety.

Item 15. of your application appears to indicate that you will relocate the devices authorized by your license. Please note that Condition 15. of your license specifies that installation, relocation, maintenance, repair, removal from service and initial radiation survey of devices containing licensed material shall be performed only by the device manufacturer or by other persons specifically authorized by the Commission or Agreement State to perform such services. If you desire authorization to perform any of these operations, including removal of the source holder for return to the manufacturer, please provide the following information:

1. A description of each specific operation to be performed on the device.

2. The step-by-step procedures or instructions to be followed by Kerr-McGee employees in performing such operations including a description of the radiation surveys to be conducted.

3. The name of the individual(s) who will perform the operations.

4. An outline of the training received in servicing of the devices for each named individual.

5. A description of the qualifications of the individual(s) who provided the training in servicing the devices.

7907240238 tp.
release from hold

Sincerely,

OFFICE	FCL1	FCL1				
SURNAME	LOReilly:bjp	PRGuinn	Paul R. Guinn			
DATE	7/27/79	7/27/79	License Management Branch Division of Fuel Cycle and Material Safety			

NRC FORM 318 (9-76) NRCM 0240 ☆ U.S. GOVERNMENT PRINTING OFFICE: 1976 - 626 - 760

A/B-33

KERR-McGEE CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

ENVIRONMENT AND HEALTH MANAGEMENT DIVISION

JUL 27 1984

July 27, 1984

EXPRESS MAIL
RETURN RECEIPT REQUESTED

Mr. R.J. Everett, Chief
Material Radiation Protection Section
Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Re: Byproduct License Renewal
Application 35-12636-03

Dear Mr. Everett:

Enclosed is check number 020888 in the amount of $120.00 for the renewal application fee for the Sequoyah Facility in Gore, Oklahoma. The renewal application was mailed to you on July 26, 1984 without the check.

If you have any questions, please call Maybelle Landagora at (405) 270-2607.

Sincerely,

J. C. Stauter /jcs

J.C. Stauter, Director
Nuclear Licensing & Regulation

JCS/br

Enclosure (1)

60349
A/B-35

KERR-McGEE CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

ENVIRONMENT AND HEALTH MANAGEMENT DIVISION

July 26, 1984

JUL 27 1984

EXPRESS MAIL
RETURN RECEIPT REQUESTED

Mr. R.J. Everett, Chief
Material Radiation Protection Section
Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Re: Byproduct License Renewal
Application 35-12636-03

Dear Mr. Everett:

The subject application for the Sequoyah Facility, Gore, Oklahoma, is enclosed. Item No. 13 has been revised in accordance with suggestions by C. Cain during a recent inspection. All other changes relate to reorganization within Kerr-McGee Corporation and Sequoyah Fuels Corporation.

The required application fee is also enclosed ($120.00). If additional information is required, please let us know.

Sincerely,

J.C. Stauter

J.C. Stauter, Director
Nuclear Licensing & Regulation

JCS:ML/br

Enclosures

60349

8410030602 840912
NMS LIC30
35-12636-03 PDR

A/B-0936

NRC Form 782
(1-82)

U.S. NUCLEAR REGULATORY COMMISSION

MATERIALS DATA [illegible]UT – INDUSTRIAL, MEDICAL, SOUR[illegible] SPECIAL NUCLEAR

A. TYPE OF ACTION AND IDENTIFICATION CODES

	NEW LICENSE	XX	AMENDMENT TO RENEW LICENSE		AMENDMENT TO TERMINATE		VOID	DOCKET NUMBER	MAIL CONTROL NUMBER	CHANGE NAME/ADDRESS ("X" box)
1	NEW LICENSE AND NEW LICENSEE		OTHER AMENDMENT		CLERICAL CHANGE NO AMENDMENT	3		030-05948	60349	

B. INDICATIVE INFORMATION

INDIVIDUAL LICENSEES	NAME (Last, First, Middle)	NAME (Last, First, Middle)
	NAME (Last, First, Middle)	NAME (Last, First, Middle)
	NAME (Last, First, Middle)	NAME (Last, First, Middle)

3 ORGANIZATION LICENSEES	ORGANIZATION NAME (Alphabetic Sequence): Kerr-McGee Corporation			
	DEPARTMENT OR BUREAU:			
5 ADDRESS	BUILDING, STREET: Kerr-McGee Center, MT 2102	CITY: Oklahoma City	STATE: OK	ZIP CODE: 73125

6	TYPE OF APPLICANT		DATE REQUEST RECEIVED	INSTITUTION CODE	PENDING PROG. CODE	ACTUAL PROG. CODE
	333	U.S. GOVERNMENT AGENCY INDIVIDUAL LICENSEE ORGANIZATIONAL LICENSEE	07/27/84	12636		3122

SECONDARY PROGRAM CODES (As required)

#1	#2	#3	#4	#5

7	LICENSE NUMBER	DATE LICENSE ISSUED OR ACTION COMPLETED	EXPIRATION DATE	
	35-12636-03	09/12/84	09/30/89	

C. STATISTICAL INFORMATION

MEDICAL CATEGORY		FOR HUMAN USE ONLY		FOR HUMAN AND NONHUMAN USE		FOR NONHUMAN USE ONLY

POSSESSION OF THE MATERIAL IS AUTHORIZED IN ONE OF THE FOLLOWING AREAS

AND/OR IN THE STATE(S), TERRITORY(IES), COUNTRY CHECKED (At right)

SAME AS "STATE" IN ADDRESS		ALL STATES		ALL NON AGREEMENT STATES	
AL ALABAMA	GA GEORGIA	MD MARYLAND	NJ NEW JERSEY	SC SOUTH CAROLINA	WY WYOMING
AK ALASKA	HI HAWAII	MA MASSACHUSETTS	NM NEW MEXICO	SD SOUTH DAKOTA	
AZ ARIZONA	ID IDAHO	MI MICHIGAN	NY NEW YORK	TN TENNESSEE	AS AMERICAN SOMOA
AR ARKANSAS	IL ILLINOIS	MN MINNESOTA	NC NORTH CAROLINA	TX TEXAS	CZ CANAL ZONE
CA CALIFORNIA	IN INDIANA	MS MISSISSIPPI	ND NORTH DAKOTA	UT UTAH	GU GUAM
CO COLORADO	IA IOWA	MO MISSOURI	OH OHIO	VT VERMONT	PR PUERTO RICO
CT CONNECTICUT	KS KANSAS	MT MONTANA	OK OKLAHOMA	VA VIRGINIA	VI VIRGIN ISLANDS
DE DELAWARE	KY KENTUCKY	NB NEBRASKA	OR OREGON	WA WASHINGTON	
DC WASHINGTON DC	LA LOUISIANA	NV NEVADA	PA PENNSYLVANIA	WV WEST VIRGINIA	CN CANADA
FL FLORIDA	ME MAINE	NH NEW HAMPSHIRE	RI RHODE ISLAND	WI WISCONSIN	

D. POSSESSION LIMITS OF SOURCE AND SPECIAL NUCLEAR MATERIALS AND TRITIUM

SOURCE MATERIAL CEILING	G GRAMS / Kg KILOGRAMS	SNM CEILING	G GRAMS / Kg KILOGRAMS	IF FOR POWER REACTOR ("X" here)

*MATERIAL	AMOUNT	UNIT	CONFIG	ENRICH	*MATERIAL	AMOUNT	UNIT	CONFIG	ENRICH
U5 = U235		G / Kg	S / UNS				G / Kg	S / UNS	
U3 = U233		G / Kg	S / UNS				G / Kg	S / UNS	
PU=Plutonium		G / Kg	S / UNS				G / Kg	S / UNS	
UR=Uranium		G / Kg	S / UNS				G / Kg	S / UNS	
TH=Thorium		G / Kg	S / UNS				G / Kg	S / UNS	
		G / Kg	S / UNS				G / Kg	S / UNS	
		G / Kg	S / UNS				G / Kg	S / UNS	

H3 Tritium	CURIES / MILLICURIES / MICROCURIES	RIS CODES

*Use two-digit codes S: SEALED UNS: UNSEALED

NRC Form 782
(1-82)

1 – FILE COPY

A/B-37

Form NRC-374

NUCLEAR REGULATORY COMMISSION
MATERIALS LICENSE

Amendment No. 07

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter 1, Parts 30, 31, 32, 33, 34, 35, 36, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s); and to import such byproduct and source material. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	In accordance with application dated July 26, 1984
1. Kerr-McGee Corporation Kerr-McGee [redacted] Center, NT-212	3. License number 35-12636-03 is amended in its entirety to read as follows:
2. [redacted] Oklahoma City, Oklahoma 73125	4. Expiration date [redacted] August 31, 1989
	5. Docket or Reference No. 030-05248

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
A. Cesium-137	A. Sealed Sources (Nuclear [redacted] Model 850233 or 3M Models 4P6M or 4P6D)	A. Not to exceed 2 curies per source
B. Cobalt-60	B. Sealed Sources (Technical Operations Model 571 source rod)	B. Not to exceed 15 millicuries per source
C. Cesium-137	C. Sealed Sources ([redacted] Model [redacted] 850263. [redacted]	C. Not to exceed [redacted] millicuries per source
D. Cesium-137	D. Sealed Sources ([redacted] Model [redacted]	D. Not to exceed [redacted] curies per source
E. Cesium-137	E. Sealed Sources ([redacted] Model RR-130)	E. Not to exceed 450 millicuries per source
F. [redacted]	F. Sealed Sources [redacted]	F. [redacted]

571570; Amersham Mod 850233 or 850263 or 3M Model 4P6M

MATERIALS LICENSE

Supplementary Sheet

License Number 35-12636-03

Docket or
Reference No. 030-(5211

Amendment No. 07

9. Authorized use

A. To be used in Nuclear Chicago Model 5060 gauges for continuous density measurements.
B. To be used in Technical Operations Model TO/571 calibration unit for instrument calibration.
C. To be used in [redacted] Model 5179 source holders for use in a level gauge.
D. To be used in [redacted] Models 5179 source holders for use in a level gauge.
E. To be used in [redacted] Model 506 liquid density gauge.
F. [redacted]

CONDITIONS

10. Licensed material shall be used only at the Sequoyah Facility of the Kerr-McGee Nuclear Division, Gore, Oklahoma.

11. The licensee shall comply with the provisions of Title 10, Chapter 1, Code of Federal Regulations, Part 19, "Notices, Instructions and Reports to Workers; Inspections" and Part 20, "Standards for Protection Against Radiation."

12. Licensed material shall be used by, or under the supervision of, Charles A. Grosclaude, R. Kenneth G. Simpkins.

13. A. (1) Each sealed source containing licensed material, other than Hydrogen 3, with a half-life greater than thirty days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed three years, except that sealed source in Technical Operations Model TO/571 shall be tested for leakage and/or contamination at intervals not to exceed six months. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, a sealed source received from another person shall not be put into use until tested.

(2) The periodic leak test required by this condition does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage prior to any use or transfer to another person unless they have been leak tested within six months prior to the date of use or transfer.

B. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Commission.

MATERIALS LICENSE

Supplementary Sheet

License Number 35-12036-03

Docket or
Reference No. 03-05499

Amendment No. 07

13. continued

C. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the test with the U. S. Nuclear Regulatory Commission, Region IV, Office of Inspection and Enforcement, 611 Ryan Plaza Drive, Suite 1000, Arlington, Texas 76012, describing the equipment involved, the test results, and the corrective action taken.

D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically authorized by the Commission or an Agreement State to perform such services.

14. Sealed sources containing licensed material shall not be opened or removed from their respective source holders by the licensee.

15. Installation, initial radiation survey of devices, relocation, maintenance, repair, and removal from service of the devices containing licensed material and installation, replacement, and disposal of sealed sources containing licensed material used in the devices shall be performed only by the device manufacturer or by other persons specifically authorized by the Commission or an Agreement State to perform such services.

16. The licensee shall conduct a physical inventory every six (6) months to account for all sealed sources received and possessed under the license. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, location of sealed sources, and the date of the inventory.

17. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in application dated June 15, 1979. The Nuclear Regulatory Commission's regulations shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

For the U. S. Nuclear Regulatory Commission

Original Signed By
PAUL R. GUINN
License Management Branch

Date JUL 27 1979

by

Division of Fuel Cycle and
Material Safety
Washington, D.C. 20555

NRC Form 313 I
(12-81)
10 CFR 30

U.S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR BYPRODUCT MATERIAL LICENSE
INDUSTRIAL

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.

1. APPLICATION FOR: *(Check and/or complete as appropriate)*

	a. NEW LICENSE
	b. AMENDMENT TO: LICENSE NUMBER
XX	c. RENEWAL OF: LICENSE NUMBER 35-12636-03

2. APPLICANT'S NAME *(Institution, firm, person, etc.)*
Kerr-McGee Corporation
TELEPHONE NUMBER: AREA CODE – NUMBER EXTENSION

3. NAME AND TITLE OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION J.C. Stauter, Director, Nuclear Licensing & Regulation
TELEPHONE NUMBER: AREA CODE – NUMBER EXTENSION
(405) 270-2623

4. APPLICANT'S MAILING ADDRESS *(Include Zip Code)* *(Address to which NRC correspondence, notices, bulletins, etc., should be sent.)*
Kerr-McGee Center, MT-2102
Oklahoma City, OK 73125

5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED *(Include Zip Code)*
Sequoyah Facility
Sequoyah Fuels Corporation
P.O. Box 267, Gore, Oklahoma 74435

(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
(See Items 16 and 17 for required training and experience of each individual named below)

	FULL NAME	TITLE
a.	Charles A. Grosclaude	Facility Health Physicist
b.	Kenneth Simeroth	designated H.P. Technician
c.		

7. RADIATION PROTECTION OFFICER
Charles A. Grosclaude

Attach a resume of person's training and experience as outlined in Items 16 and 17 and describe his responsibilities under Item 15.

8. LICENSED MATERIAL

LINE NO.	ELEMENT AND MASS NUMBER A	CHEMICAL AND/OR PHYSICAL FORM B	NAME OF MANUFACTURER AND MODEL NUMBER *(If Sealed Source)* C	MAXIMUM NUMBER OF MILLICURIES AND/OR SEALED SOURCES AND MAXIMUM ACTIVITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME D
(1)	See supplement sheet	Number 1		
(2)				
(3)				
(4)				

	DESCRIBE USE OF LICENSED MATERIAL E
(1)	See Supplement Sheet Number 2
(2)	8410030610 840912 NMS LIC30 35-12636-03 PDR
(3)	
(4)	

8/2/84
Aug -1 IV
020888
8/20-37
Renewal 8/2/84
8/6/84

A/B-38

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)* J.C. Stauter NAME *(Type or print)* J.C. Stauter
(1) LICENSE FEE CATEGORY: 3P	d. TITLE Director, Nuclear Licensing and Regulation
(2) LICENSE FEE ENCLOSED: $ 120.00	e. DATE July 26, 1984

NRC FORM 313 I (12-81)

60349

Kerr-McGee Corporation
Renewal Application
License No. 35-12636-03

Supplement Sheet No. 1

Item No. 8

No.	A	B	C	D
1.	Cesium 137	Sealed Source	Nuclear Chicago No. 850233 or 3M Model 4P6M or 4P6E	2 sources, 2 curies ea.
2.	Cobalt 60	Sealed Source	Technical Operations Model TO/571	1 source, 15 millicuries
3.	Cesium 137	Sealed Source	Nuclear Chicago No.s 850233 or 850263 or 3M No.s 4P6E or 4P6M	1 source 10 millicuries
4.	Cesium 137	Sealed Source	Nuclear Chicago No. 850263	2 sources 250 millicuries each
5.	Cesium 137	Sealed Source	Nuclear Chicago No. RR-138	2 sources, 450 millicuries each
6.	Cesium 137	Sealed Source	Omart No. A-3102	1 source, 300 millicuries
7.	Cesium 137	Sealed Source	Omart No. A-5771	1 source, 35 millicuries
8.	Cesium 137	Sealed Source	Texas Nuclear No. 5179A	2 sources, 100 millicuries each

Kerr-McGee Corporation
Renewal Application
License 35-12636-03

Supplement Sheet No. 2

Item 8E

No.	Use
1.	Continuous density measurements
2.	Instrument calibration
3.	Level gauging
4.	Level gauging
5.	Liquid density gauging
6.	Level alarm
7.	Weight gauging
8.	Level gauging

60349

Kerr-McGee Corporation
Renewal Application
License 35-12636-03

Supplement Sheet No. 3

Item 9

No.	A	B	C
1.	gauge	Nuclear Chicago	5060
2.	calibration kit	Technical Operations	TO/571
3.	gauge	Nuclear Chicago	5178
4.	gauge	Nuclear Chicago	5179
5.	gauge	Nuclear Chicago	506
6.	level alarm	Ohmart	HM-8
7.	gauge	Ohmart	SHRM
8.	gauge	Texas Nuclear	570-57157C

Kerr-McGee Corporation
Renewal Application
License No. 35-12636-03

Supplement Sheet No. 4

Item 13 Density, Level and Weight Gauges A,C,D,E,F,G,H

1) Except repair (maintenance) of the device, the licensee shall be permitted to install, relocate, remove from service and store the device. Leak tests, as required, shall also be performed by the licensee.

2) The device manufacturer or other person(s) specifically authorized by the Commission shall perform repair maintenance service on the devices, including removal of the source from the holder.

3) Hazardous work permits (HWP) will be required to be issued before any operation from step 1 above is performed. The work permit shall require the following:

a) Before removal of a device, the RSO or his designated H.P. Technician shall inspect the device and then padlock the source holder shutter in the closed position. He shall perform a radiation survey to assure that the beam shield is in the "off" position.

b) Before installation of a device the RSO or his designated H.P. Technician shall inspect the device and perform a radiation survey to be assured that the beam shutter (shield) is in the closed position and is padlocked.

c) The dose rate at the outer surface of the device when the shutter is closed and locked shall be listed in the HWP. Caution labels required shall be stipulated. Personal dosimeters will be worn by workers.

d) Workers will be required to read and sign the HWP before handling the device.

e) After installation of a device the RSO or his designated H.P. Technician shall inspect the device and the equipment it services to be certain that no part of a person's body can be placed in the direct beam. He will then unlock and open the beam shutter (shield) and perform a radiation survey of the immediate area around the device.

4) Gauge devices in storage shall be located in a remote area under the control of warehouse security. Device key or lock combination responsibility belongs exclusively to the RSO and his designated H.P. Technician. Devices in storage shall be properly labeled with radiation caution labels. The gauge shutters (shields) shall be locked in the closed (off) position.

60349

Kerr-McGee Corporation
Renewal Application
License No. 35-12636-03

Supplement Sheet No. 5

Item 15

An extensive radiation protection program is conducted at the Sequoyah Facility as described in Source Material License No. SUB-1010, docket No. 40-8027.

Specific to this Byproduct License application the following additional measures and precautions are taken:

a) Sealed sources containing byproduct material shall not be opened or removed from their respective holders.

b) Each sealed source containing byproduct material shall be tested for leakage and/or contamination at intervals not to exceed six months, except that the Nuclear-Chicago gauges shall be leak tested at intervals not exceeding three years. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, the sealed source shall not be put into use until tested.

The leak test is conducted by first opening the device exposing the sealed source holder. The holder and source are carefully wiped with a 2 inch diameter filter paper held with 18 inch tongs. The device is closed. The filter paper is measured on a gamma pulse-height analyzer which can detect less than 0.005 microcuries.

Sealed sources not in use are not leak tested, however they shall be tested for leakage prior to any use or transfer to another person unless they have been leak tested within six months prior to the date of use or transfer.

c) If the test reveals the presence of 0.005 microcuries or more of removable contamination, the sealed source will be immediately withdrawn from use, decontaminated and repaired or disposed of in accordance with Commission regulations. A report will be submitted to the Region IV USNRC compliance office director describing the test results, the equipment involved and the corrective action taken.

Kerr-McGee Corporation
Renewal Application
License 35-12636-03

Supplement Sheet No. 6

Items 16 and 17

Charles A. Grosclaude

Manager, Health Physics and Industrial Safety (RSO)
Education - High School Graduate

Health Physics Training Received:

1. Radiation Monitoring Course and Refresher Course, General Electric Co., Richland, WA (1956-1964)

2. U.S. Public Health Service Courses:

   a. Basic Radiological Health Course (1965)
   b. Radionuclide Analysis by Gamma Spectroscopy (1965)
   c. Occupational Radiation Protection (1969)

3. Environmental and Occupational Radiation Protection Course, presented by Harvard School of Public Health (1981)

4. Radiation Protection Services and Environmental Surveillance for Uranium Resource Organizations (1983) presented by Eberline Services Division

5. Radwaste Reduction and 10 CFR 61 Compliance (1984) presented by Technical Management Services.

Experience:

Health Physics and Industrial Safety Manager, Sequoyah Facility, Sequoyah Fuels Corporation. Responsible for conducting Radiological, Industrial Safety Program and Environmental Monitoring at a Uranium Conversion Facility. (1970 to present).

Reynolds Electric and Engineering Company. Duties were to provide radiological services for contract or group as directed. (1968-1970).

Health Physics Technician, Dairyland Power Cooperative, LaCrosse, WI. As a Health Physics Technician, duties were to provide radiological services as directed by the Health and Safety Engineer (1964-1968).

General Electric Company. Provide radiological protection services as directed in Plutonium Production Reactors, site Environmental Monitoring, Reactor Fuel fabrication facilities, laboratory facilities and test reactors. (1954-1964).

60349

Items 16 and 17 Kenneth G. Simeroth

Senior Health and Safety Technician

Education:

Porum High School, Porum, OK (1956-1960)
Connors State College, Warner, OK (1960-1962)
Pre-Engineering Associate of Arts, Northeastern State, Tahlequah, OK (1969-1978) Industrial Technology - BA.

Medical Equipment Repair School, Gunter, AFB, AL, 16 weeks (1964).

Chemical Operator School, Kerr-McGee, Gore, OK, 6 weeks, 1970.

Radiological Technologist Course, Rockwell International, 1982.

Experience:

1970 to present - Health and Safety Technician. Perform radiation monitoring in the plant. Perform monitoring for all air and water effluents from plant. First aid applied as needed. Consultant on all jobs that might be of a hazardous nature.

March 1970 to June 1970, Kerr-McGee Sequoyah Facility, Chemical Operator. Primarily worked with sampling of uranium for assay.

December 1969 to March 1970 - A.J. Simeroth, Porum, OK. Farm and ranch worker. Familiar with all phases of farm and ranch work.

September 1969 to December 1969 - McCathern Pipeline Company, Pampa, TX. Laborer. Worked on most areas of pipeline construction.

September 1968 to May 1969 - Northeastern State College, Tahlequah, OK - Student, majored in Math and Physics.

April 1964 to April 1968 - U.S. Air Force, Medical Equipment Repair. (1) Repair and modification of new medical equipment; (2) Consultation on installation of new medical equipment; and (3) Repair of all X-ray equipment. Trained in basic electrical and electronic operations.

60349

NRC Form 374
(8-82)

U.S. NUCLEAR REGULATORY COMMISSION

MATERIALS LICENSE

Amendment No. 08
CORRECTED COPY

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s); and to import such byproduct and source material. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	
1. Kerr-McGee Corporation Kerr-McGee Center, MT-2102	In accordance with application dated July 26, 1984
2. Oklahoma City, Oklahoma 73125	3. License number 35-12636-03 is amended in its entirety to read as follows:
	4. Expiration date August 31, 1989
	5. Docket or Reference No. 030-05948

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
A. Cesium-137	A. Sealed sources (Texas Nuclear Model 850233 or 3M Models 4P6M or 4P6E)	A. Not to exceed 2 curies per source
B. Cobalt-60	B. Sealed sources (Technical Operations Model 571 source rod)	B. Not to exceed 15 millicuries per source
C. Cesium-137	C. Sealed sources (Texas Nuclear Model 57157C or Amersham Model 850263)	C. Not to exceed 50 millicuries per source
D. Cesium-137	D. Sealed sources (Texas Nuclear Models 57157C; Amersham Model 850233 or 850263; or 3M Model 4P6M)	D. Not to exceed 1 curie per source

A/B-47

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number 35-12636-03

Docket or Reference number 030-05948

Amendment No. 08

CORRECTED COPY

E. Cesium-137	E. Sealed sources (Nuclear Chicago Model RR-138)	E. Not to exceed 450 millicuries per source
F. Cesium-137	F. Sealed sources	F. See Item 9.F.

9. Authorized use

A. To be used in Texas Nuclear Model 5060 gauges for continuous density measurements.

B. To be used in Technical Operations Model TO/571 calibration unit for instrument calibration.

C. To be used in Texas Nuclear Model 5178 source holders for use in a level gauge.

D. To be used in Texas Nuclear Model 5179 or 5179A source holders for use in a level gauge.

E. To be used in Nuclear Chicago Model 506 liquid density gauge.

F. For possession and use in Ohmart devices which have been evaluated and approved for licensing purposes and authorized for distribution under a license issued by the Nuclear Regulatory Commission or an Agreement State.

CONDITIONS

10. Licensed material shall be used only at the Kerr-McGee Sequoyah Facility, Gore, Oklahoma.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number 35-12636-03

Docket or Reference number 030-05948

Amendment No. 08

CORRECTED COPY

11. The licensee shall comply with the provisions of Title 10, Chapter 1, Code of Federal Regulations, Part 19, "Notices, Instructions and Reports to Workers; Inspections" and Part 20, "Standards for Protection Against Radiation."

12. Licensed material shall be used by, or under the supervision of, Charles A. Grosclaude or Kenneth G. Simeroth.

13. A. (1) Each sealed source containing licensed material, other than Hydrogen 3, with a half-life greater than 30 days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed 3 years, except that sealed source in Technical Operations Model TO/571 shall be tested for leakage and/or contamination at intervals not to exceed 6 months. In the absence of a certificate from a transferor indicating that a test has been made within 6 months prior to the transfer, a sealed source received from another person shall not be put into use until tested.

(2) The periodic leak test required by this condition does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage prior to any use or transfer to another person unless they have been leak tested within 6 months prior to the date of use or transfer.

B. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Commission.

CORRECTED COPY

C. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the test with Region IV, U. S. Nuclear Regulatory Commission, 611 Ryan Plaza Dr., Suite 1000, Arlington, Texas 76011, describing the equipment involved, the test results, and the corrective action taken.

D. The licensee is authorized to collect and analyze leak test samples in accordance with the procedures described in the licensee's application dated July 26, 1984. Alternatively, leak test samples may be collected and/or analyzed by other persons specifically authorized by the Commission or an Agreement State to perform such services.

14. Sealed sources containing licensed material shall not be opened or removed from their respective source holders by the licensee.

15. Installation, relocation, removal from service, and initial radiation survey of devices containing licensed material shall be performed only by the licensee in accordance with application dated July 26, 1984, by the device manufacturer, or by other persons specifically authorized by the Commission or an Agreement State to peform such services. Maintenance and repair of devices, and installation, replacement, and disposal of sealed sources containing licensed material used in devices shall be performed only by the device manufacturer or by other persons specifically authorized by the Commission or an Agreement State to perform such services.

16. The licensee shall conduct a physical inventory every 6 months to account for all sealed sources received and possessed under the license. The records of the inventories shall be maintained for 2 years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, manufacturer's name and model numbers, location of sealed sources and the date of the inventory.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number
35-12636-03

Docket or Reference number
030-05498

Amendment No. 08

CORRECTED COPY

17. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in application dated July 26, 1984. The Nuclear Regulatory Commission's regulations shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Original Signed By
Jack E. Whitten

Date OCT 16 1984

By
Material Radiation Protection Section
Region IV
Arlington, Texas 76011

K-7

Official Record Copy

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SEP 20 1984

RIV Official File Copy

License: 35-12636-03

Sequoyah Fuels Corporation
ATTN: J. C. Stauter, Director
Nuclear Licensing and Regulation
Kerr-McGee Center
Oklahoma City, Oklahoma 73125

Gentlemen:

Thank you for your letter of September 12, 1984, in response to our letter and the attached Notice of Violation dated August 13, 1984. We have reviewed your reply and find it responsive to the concerns raised in our Notice of Violation. We will review the implementation of your corrective actions during a future inspection to determine that full compliance has been achieved and will be maintained.

Sincerely,

"Original Signed by
R. E. Hall"

R. E. Hall, Acting Chief
Nuclear Materials Safety and
Safeguards

bcc:
DMB (IE07)
J. Collins
R. Bangart
C. Cain
T. Westerman
S. File
RIV Files
NMS&SB

NMSS	NMSS	NMS&SB	DRS&S
CCain/sm	JEverett	RHall	RHall
9/19/84	9/19/84	9/19/84	9/20/84

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A/B-45

KERR-McGEE CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

ENVIRONMENT AND HEALTH MANAGEMENT DIVISION

September 25, 1984

SEP 28 1984

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Jack E. Whitten
Material Radiation Protection Section
Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Re: Byproduct Material License
35-12636-03
Docket 030-05498

Dear Mr. Whitten:

Amendment 08 renewing the subject license in its entirety has been received. We believe that items 7F, 8F and 13D of the license amendment need to be clarified or corrected and suggest they be changed as follows:

7.F. Sealed Sources
Omart Model Numbers
A-3102 and A-5771

8.F. Not to exceed 300 mCi per Source. See Item 9.F.

13.D. The licensee is authorized to collect and analyze leak test samples in accordance with the procedures for analysis described in the licensee's application dated July 26, 1984. Alternatively, leak test samples may be collected and/or analyzed by other persons specifically authorized by the Commission or an Agreement State to perform such services.

Will you please issue a correction to the license as requested above.

Sincerely,

J.C. Stauter

J.C. Stauter, Director
Nuclear Licensing & Regulation

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35-12636-03 PDR

JCS:ML/br

A/B-46

NRC Form 374
(3-83)

U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 08

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	
1. Kerr-McGee Corporation Kerr-McGee Center, MT-2102	In accordance with application dated July 26, 1984
2. Oklahoma City, Oklahoma 73125	3. License number 35-12636-03 is amended in its entirety to read as follows:
	4. Expiration date August 31, 1989
	5. Docket or Reference No. 030-05948

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
A. Cesium-137	A. Sealed sources (Texas Nuclear Model 850233 or 3M Models 4P3N or 4P6E)	A. Not to exceed 2 curies per source
B. Cobalt-60	B. Sealed sources (Technical Operations Model 571 source rod)	B. Not to exceed 15 millicuries per source
C. Cesium-137	C. Sealed sources (Texas Nuclear Model 57157C or Amersham Model 850263)	C. Not to exceed 50 millicuries per source
D. Cesium-137	D. Sealed sources (Texas Nuclear Models 57157C; Amersham Model 850233 or 850263; or 3M Model 4P6M)	D. Not to exceed 1 curie per source

A/B-43

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number 35-12636-03

Docket or Reference number 030-05948

Amendment No. 08

E. Cesium-137	E. Sealed sources (Nuclear Chicago Model RR-138)	E. Not to exceed 450 millicuries per source
F. Cesium-137	F. Sealed sources	F. See Item 9.A.

9. Authorized use

A. To be used in Texas Nuclear Model 5060 gauges for continuous density measurements.

B. To be used in Technical Operations Model TO/571 calibration unit for instrument calibration.

C. To be used in Texas Nuclear Model 5178 source holders for use in a level gauge.

D. To be used in Texas Nuclear Model 5179 or 5179A source holders for use in a level gauge.

E. To be used in Nuclear Chicago Model 506 liquid density gauge.

F. For possession and use in Ohmart devices which have been evaluated and approved for licensing purposes and authorized for distribution under a license issued by the Nuclear Regulatory Commission or an Agreement State.

CONDITIONS

10. Licensed material shall be used only at the Kerr-McGee Sequoyah Facility, Gore, Oklahoma.

NRC Form 374A (8-82) U.S. NUCLEAR REGULATORY COMMISSION

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number
35-12636-03

Docket or Reference number
030-05948

Amendment No. 08

11. The licensee shall comply with the provisions of Title 10, Chapter 1, Code of Federal Regulations, Part 19, "Notices, Instructions and Reports to Workers; Inspections" and Part 20, "Standards for Protection Against Radiation."

12. Licensed material shall be used by, or under the supervision of, Charles A. Grosclaude or Kenneth G. Simeroth.

13. A. (1) Each sealed source containing licensed material, other than Hydrogen 3, with a half-life greater than 30 days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed 3 years, except that sealed source in Technical Operations Model TO/571 shall be tested for leakage and/or contamination at intervals not to exceed 6 months. In the absence of a certificate from a transferor indicating that a test has been made within 6 months prior to the transfer, a sealed source received from another person shall not be put into use until tested.

(2) The periodic leak test required by this condition does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage prior to any use or transfer to another person unless they have been leak tested within 6 months prior to the date of use or transfer.

B. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Commission.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number
35-12636-03

Docket or Reference number
030-05498

Amendment No. 08

C. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the test with Region IV, U. S. Nuclear Regulatory Commission, 611 Ryan Plaza Dr., Suite 1000, Arlington, Texas 76011, describing the equipment involved, the test results, and the corrective action taken.

D. The licensee is authorized to collect and alnalyze leak test samples in accordance with the procedures described in the licensee's application dated for analysis by July 26, 1984. Alternatively, leak test samples may be collected and/or analyzed by other persons specifically authorized by the Commission or an Agreement State to perform such services.

14. Sealed sources containing licensed material shall not be opened or removed from their respective source holders by the licensee.

15. Installation, relocation, removal from service, and initial radiation survey of devices containing licensed material shall be performed only by the licensee in accordance with application dated July 26, 1984, by the device manufacturer, or by other persons specifically authorized by the Commission or an Agreement State to peform such services. Maintenance and repair of devices, and installation, replacement, and disposal of sealed sources containing licensed material used in devices shall be performed only by the device manufacturer or by other persons specifically authorized by the Commission or an Agreement State to perform such services.

16. The licensee shall conduct a physical inventory every 6 months to account for all sealed sources received and possessed under the license. The records of the inventories shall be maintained for 2 years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, manufacturer's name and model numbers, location of sealed sources and the date of the inventory.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number
35-12636-03

Docket or Reference number
030-05498

Amendment No. 08

17. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in application dated July 26, 1984. The Nuclear Regulatory Commission's regulations shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date SEP 12 1984

Original Signed By
Jack E. Whitten

By

Material Radiation Protection Section
Region IV
Arlington, Texas 76011

Official Record Copy

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KERR-McGEE CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

ENVIRONMENT AND HEALTH MANAGEMENT DIVISION

September 12, 1984

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. R.E. Hall, Acting Chief
Nuclear Materials Safety and Safeguards Branch
U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Re: License 35-12636-03
Docket 030-05948

Dear Mr. Hall:

In accordance with the provisions of 10 CFR 2.201, Sequoyah Fuels Corporation submits the following responses to your notice of violations determined in the unannounced inspection on July 17-19, 1984.

License Condition 15: Several devices had been removed from service, relocated, or reinstalled by the licensee.

Sequoyah Fuels Corporation submitted on July 26, 1984, as part of the byproduct license renewal application the following request for change in Item 13 to permit installation, relocation, and removal from service and storage of these devices under the supervision of the RSO or his designated H.P. Technician:

(1) "Except repair (maintenance) of the device, the licensee shall be permitted to install, relocate, remove from service and store the device."

(2) "The device manufacturer or other person(s) specifically authorized by the Commission shall perform maintenance service on the devices, including removal of the source from the holder."

In addition, the facility Hazardous Work Permit Procedure has been revised in accordance with Item 13(3) of the renewal application to assure that proper procedures are followed during handling of the devices.

Until changes in Item B of the byproduct material license are approved, gauges will be moved only by the manufacturer or under the supervision of the RSO or his designated H.P. Technician after specific approval from the NRC.

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RIV Official File Copy

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The two sealed sources located on the third floor of the hydrofluorination area have been shielded to reduce dose rates to "Radiation Area" limits (10 CFR 20.202 b.2).

License Condition 17: A gauge stored in a licensee warehouse at the time of inspection was not secured with its shutter locked.

The shutter on the sealed source stored in the warehouse was locked shut on July 18, 1984, and will remain locked while in storage.

The requirement that gauges are to be locked when stored was reviewed. Revisions to the facility Hazardous Work Permit Procedure were made requiring that the shutter be locked in the closed position before placement in storage.

License Condition 13.A(1): The sealed source in the Technical Operations Model TO/571 had not been tested for leakage between August 1982 and November 1983, an interval exceeding the six-month required interval.

In November 1983, when the leak test omission was noted, a reminder file system was established for all sources to assure that leak tests would be performed within the license condition six-month specification.

As back-up to the plant reminder file, the Kerr-McGee Corporation Regulatory Compliance department also issues a reminder when leak tests are due.

The above actions had been in effect at the time of inspection (Condition 13.A) or were implemented immediately after the site inspection exit interview.

Should you have any further questions, please contact me at (405) 270-2623.

Sincerely,

J.C. Stauter

J.C. Stauter, Director
Nuclear Licensing & Regulation

JCS:ML/br

SEP 12 1984

Kerr-McGee Corporation
ATTN: J. C. Stauter, Director
Nuclear Licensing and Regulation
Kerr-McGee Center, MT-2102
Oklahoma City, Oklahoma 73125

Gentlemen:

Please find enclosed Amendment No. 08 renewing your NRC material license. You should review this license carefully and be sure that you understand all conditions. If you have any questions, you may contact the reviewer who signed your license at 817/860-8100.

Please be advised that you must conduct your program involving radioactive materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.

2. Possess radioactive material only in the quantity and form indicated in your license.

3. Use radioactive material only for the purpose(s) indicated in your license.

4. Notify NRC in writing of any change in mailing address (no fee required if the location of radioactive material remains the same).

5. Request and obtain appropriate amendments if you plan to change ownership of your organization, change locations of radioactive material, or make any other changes in your facility or program which are contrary to your license conditions or representations made in your license application and any supplemental correspondence with NRC. A license fee may be charged for the amendments if you are not in a fee-exempt category.

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35-12636-03 PDR

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6. Submit a complete renewal application with proper fee, or termination request at least 30 days before the expiration date on your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of radioactive material after your license expires is a violation of NRC regulations.

7. Request termination of your license if you plan to permanently discontinue activities involving radioactive material.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a notice of violation; imposition of a civil penalty; or an order suspending, modifying, or revoking your license as specified in the General Policy and Procedures for NRC Enforcement Action, 10 CFR Part 2, Appendix C. Since serious consequences to employees and the public can result from failure to comply with NRC requirements, prompt and vigorous enforcement action will be taken when dealing with licensees who do not achieve the necessary meticulous attention to detail and the high standard of compliance which the NRC expects of its licensees.

Thank you for your cooperation.

Sincerely,

R. J. Everett, Chief
Nuclear Materials Safety Section

Enclosure: As stated

AUG 14 1984

Kerr-McGee Corporation
ATTN: J. C. Stauter, Director
Nuclear Licensing and Regulation
Kerr-McGee Center, MT 2102
Oklahoma City, Oklahoma 73125

Docket No. 030-05948
License No. 35-12636-03
Control No. 60349

Gentlemen:

This is to acknowledge receipt of your application for renewal of the byproduct material license identified above. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.

Any correspondence regarding the renewal application should reference the control number specified and your license number.

Sincerely,

Original Signed By
R. J. Everett

R. J. Everett, Chief
Nuclear Materials Safety Section

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8/10/84

C:NMSS
RJEverett
8/14/84

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35-12636-03 PDR

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RIV Official File Copy

AUG 13 1984

Licenses: 35-12636-03
SUB-1010

Sequoyah Fuels Corporation
ATTN: J. C. Stauter, Director
Nuclear Licensing and Regulation
Kerr-McGee Center
Oklahoma City, OK 73125

Gentlemen:

This refers to the routine, unannounced radiation safety inspection conducted by Mr. C. L. Cain of this office on July 17-19, 1984, of the activities authorized by NRC Source Material License SUB-1010 and NRC Byproduct Material License 35-12636-03 and to the discussion of our findings held by the inspector with members of your staff at the conclusion of the inspection. The enclosed NRC Inspection Report 040-08027/84-01; 030-05948/84-01 documents this inspection.

The inspection was an examination of the activities conducted under the license as they relate to radiation safety and to compliance with the Commission's rules and regulations, and the conditions of the license. The inspection consisted of selective examinations of procedures and representative records, interviews of personnel, independent measurements, and observations by the inspector.

No violations of NRC requirements were found during this inspection in regard to NRC Source Material License SUB-1010. However, certain of your activities associated with Byproduct Material License 35-12636-03 were found not to be conducted in full compliance with NRC requirements. Consequently, you are required to respond to this matter in writing in accordance with the provisions of Section 2.201 of the NRC "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Your response should be based on the specifics contained in the Notice of Violation enclosed with this letter.

Mr. Cain also reviewed the action you had taken with respect to two violations observed during our previous inspection of NRC Source Material License SUB-1010 which was conducted February 14-18, 1983. He verified that the corrective action with respect to these items was implemented as stated in your reply of April 26, 1983, to our letter dated April 6, 1983.

In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you believe to be exempt from disclosure under 10 CFR 9.5(a)(4), it is necessary that you (a) notify this office by telephone within 10 days from the date of this letter

NMSS	NMSS	NMS&SB	DRS&S
CCain/	JEverett	RHall	RHall
8/3/84	8/6/84	8/10/84	8/13/84

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of your intention to file a request for withholding; and (b) submit within 25 days from the date of this letter a written application to this office to withhold such information. If your receipt of this letter has been delayed such that less than 7 days are available for your review, please notify this office promptly so that a new due date may be established. Consistent with Section 2.790(b)(1), any such application must be accompanied by an affidavit executed by the owner of the information which identifies the document or part sought to be withheld, and which contains a full statement of the reasons on the basis which it is claimed that the information should be withheld from public disclosure. This section further requires the statement to address with specificity the considerations listed in 10 CFR 2.790(b)(4). The information sought to be withheld shall be incorporated as far as possible into a separate part of the affidavit. If we do not hear from you in this regard within the specified periods noted above, the report will be placed in the Public Document Room.

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

Should you have any questions concerning this letter, we will be pleased to discuss them with you.

Sincerely,

"Original Signed By
R. E. Hall"

R. E. Hall, Acting Chief
Nuclear Materials Safety and
Safeguards Branch

Enclosure:
1. Appendix A - Notice of Violation
2. Appendix B - NRC Inspection
Report 040-08027/84-01; 030-05948/84-01

cc:
Sequoyah Fuels Corporation
ATTN: J. C. Carr, Manager
Sequoyah Facility
P. O. Box 610
Gore, OK 74435

bcc: c/o DMB (IE-07)
J. Collins
R. Bangart
T. Westerman
Inspector
S. File
Lic. Fee File
Info Systems
RIV Files
TPB

APPENDIX A

NOTICE OF VIOLATION

Sequoyah Fuels Corporation

Docket: 030-05948
License: 35-12636-03

Based on the results of the inspection conducted on July 17-19, 1984, and in accordance with the NRC Enforcement Policy (10 CFR Part 2, Appendix C), 49 FR 8583 (March 8, 1984), the following violations were identified:

1. License Condition 15 requires, in part, that installation, initial radiation survey of devices, relocation, and removal from service of the devices containing licensed material shall be performed only by the device manufacturer or by other persons specifically authorized by the Commission or an agreement state to perform such services.

   Contrary to this requirement, several devices had been removed from service, relocated, or reinstalled by the licensee.

   This is a Severity Level IV violation (Supplement VI).

2. License Condition 17 requires, in part, that licensed material shall be possessed and used in accordance with statements, representations, and procedures contained in the application dated June 15, 1979. Item 13 of the application states that gauge shutters will be locked in the "closed" position whenever the gauges are not installed.

   Contrary to this requirement, a gauge stored in a licensee warehouse at the time of the inspection was not secured with its shutter locked.

   This is a Severity Level IV violation (Supplement VI).

3. License Condition 13.A.(1) requires, in part, that the sealed source in the Technical Operations Model TO/571 device shall be tested for leakage and/or contamination at intervals not to exceed 6 months.

   Contrary to this requirement, such tests were not performed between August 1982 and November 1983, an interval of 15 months.

   This is a Severity Level V violation (Supplement VI).

Pursuant to the provisions of 10 CFR 2.201, Sequoyah Fuels Corporation is hereby required to submit to this office, within 30 days of the date of this Notice, a written statement or explanation in reply, including:

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(1) the corrective steps which have been taken and the results achieved;

(2) the corrective steps which will be taken to avoid further violations; and

(3) the date when full compliance will be achieved.

Consideration may be given to extending your response time for good cause shown.

Dated AUG 13 1984

APPENDIX B

U. S. NUCLEAR REGULATORY COMMISSION

REGION IV

NRC Inspection Report: 040-08027/84-01
030-05948/84-01

Licenses: SUB-1010
35-12636-03

Dockets: 040-08027
030-05948

Licensee: Sequoyah Fuels Corporation
ATTN: J. C. Stauter, Director
Nuclear Licensing and Regulation
Kerr-McGee Center
Oklahoma City, OK 73125

Facility: Sequoyah Uranium Hexafluoride Conversion Facility

Inspection At: Gore, Oklahoma

Inspection Conducted: July 17-19, 1984

Inspector: C L Cain
C. L. Cain, Radiation Specialist — Date: 8/3/84

Approved: R. J. Everett
R. J. Everett, Chief, Nuclear Materials Safety Section — Date: 8/9/84

Inspection Summary

Inspection Conducted July 17-19, 1984 (Report: 040-08027/84-01; 030-05948/84-01)

Areas Inspected: Routine, unannounced inspection of conversion facility operations and radiation safety program including organization, management, and training; facilities and equipment; internal exposure control; external exposure and contamination control; waste management and environmental monitoring; fixed gauge operations; and independent measurements.

The inspection involved 24 inspector-hours onsite by one NRC inspector.

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Results: No violations or deviations were identified in regard to License SUB-1010. However, two open items were identified (failure to properly calibrate air samplers, paragraph 5.a, and failure to perform detailed analysis of internal exposures nearing regulatory limits, paragraph 5.b). Three violations were identified in regard to License 35-12636-03 as follows (paragraph 8):

1. Removal from service, relocation, and reinstallation of gauges by an unauthorized agent (License Condition 15).

2. Failure to lock gauge shutters when gauges were not installed (License Condition 17).

3. Failure to perform leak tests (License Condition 13.a.(1)).

DETAILS

1. Persons Contacted

*J. C. Carr, Manager, Sequoyah Facility
*C. A. Grosclaude, Manager, Health Physics and Industrial Safety
*G. J. Sinke, Staff Health Physicist, Kerr-McGee Corporation
K. Simeroth, Senior Health Physics Technician
D. Knoke, Laboratory Supervisor

*Denotes those individuals present at the exit briefing.

The NRC inspector also interviewed three facility employees.

2. Licensee Action on Previous Inspection Findings

(Closed) Violation (040-08027/83-01): Failure to perform direct reading alpha contamination surveys. The NRC inspector verified that such surveys have been performed weekly in accordance with the licensee's commitment.

(Closed) Violation (040-08027/83-01): Failure to adequately evaluate stack effluent. The NRC inspector reviewed records which indicated that the licensee's committed corrective action of using a multi-stage sample train had been implemented.

(Open) Open Item (040-08027/83-01): Failure to establish written procedures for health physics functions. Although the licensee had not yet completed this effort, a clear commitment to establish such procedures has been documented in Chapter 12 of the license renewal application dated October 17, 1983. Since the renewed license will reference the application as a license requirement, this item will be reviewed for compliance during the next inspection.

(Closed) Unresolved Item (040-08027/83-01): Use of nonconservative air sampling flow rates to derive air concentrations used in exposure calculations. The NRC inspector reviewed records of weekly air sampler calibrations and noted that relatively few samplers were found to have greatly reduced flow rates prior to calibration. Also, since personnel exposures are calculated based on the average of several sampler locations, the effect of this phenomenon is expected to be negligible.

3. Organization, Management, and Training

Effective September 1983, Kerr-McGee Corporation consolidated its nuclear operations in Oklahoma and Wyoming into a wholly-owned subsidiary named Sequoyah Fuels Corporation. During May 1984, J. C. Carr was appointed manager of the Sequoyah facility reporting to R. P. Luke, Executive Vice President of Sequoyah Fuels. Also since the last inspection,

J. C. Stauter was appointed Director, Nuclear Licensing and Regulation, replacing the retiring W. J. Shelley.

The facility manager stated that his staff size was essentially unchanged since the last inspection and was comprised of approximately 150 employees. The health physics staff also was unchanged and included, in addition to the manager, a senior health physics technician, a health physics technician assigned to each of the four work shifts, and a clerk.

The licensee presented various reports of internal review and audit of facility health physics activities. Weekly safety and housekeeping inspections have been performed by the health physics technicians, and results have been reported by the health physics manager to the facility manager. The health physics manager also has submitted monthly progress reports to the facility manager which have summarized radiation exposure and other health physics data.

An ALARA committee comprised of five personnel from the corporate and facility staffs audited facility licensed activities during the first quarter of 1984 and submitted a report of their findings. The corporate staff health physicist has also conducted quarterly reviews of facility safety programs.

The NRC inspector reviewed several hazardous work permits and noted that the program was essentially unchanged since the last inspection. The licensee had also issued one new health physics procedure entitled "Monitor Well and Surface Water Sampling Procedures."

The NRC inspector found the radiation safety training program to be conducted as stated in the application and observed no program modifications since the last inspection. The NRC inspector reviewed samples of written exams administered to workers in conjunction with initial and refresher training courses and noted that "tailgate" safety meetings incorporating radiation safety information had been held monthly with each work crew. The NRC inspector interviewed three workers and determined that their understanding of radiation safety practices was sufficient to indicate licensee compliance with 10 CFR Part 19.12. The NRC inspector observed that notices were posted as required by 10 CFR Part 19.11 and 10 CFR Part 21.

The health physics manager also described the training that he and his staff had received in recent years. The manager stated that he had attended a week long course in May 1984 concerning radioactive waste reduction and 10 CFR Part 61 compliance. He further indicated that occasionally he had been permitted to attend other training courses. The manager stated that the technicians have either participated in a home study course designed by Rockwell or have attended a health physics course at Oklahoma State University.

No violations or deviations were identified.

4. Facilities and Equipment

The NRC inspector toured the plant and project site on several occasions during the inspection in order to observe operations in progress and to assure that equipment and facilities were in accordance with applicable license requirements. Plant process buildings were noted to be generally clean and orderly. The licensee provided plant process rate data for 1983 and asked that it remain proprietary. The NRC inspector noted that the process rate was less than in previous years and that the plant had operated continuously except for a maintenance shutdown lasting several weeks during the spring of 1984. The licensee stated that essentially all yellowcake had arrived at the site as drummed, dried material and that bulk slurry shipments have continued to decline.

The NRC inspector also reviewed the recently completed miscellaneous digestor facility located south of the solvent extraction building. Process wastes such as ash and filter wastes are drummed after collection and then returned to this area for digestion and reinjection into the solvent extraction circuit. The licensee explained that although the facility is new, this activity does not constitute a process circuit change and should effect an overall reduction in airborne uranium. The NRC inspector observed that the drum dumping portion of the facility was enclosed and isolated from the operator.

Incoming yellowcake drums and outgoing UF_6 cylinders were noted to be marked "Radioactive-LSA," and transport of source material appeared to comply with 49 CFR Part 173.425. Forms NRC-741, completed upon receipt and transfer of source material, were reviewed and compliance with 10 CFR Part 40.64(a) was verified. The 1983 source material inventory report required by 10 CFR Part 40.64(b) was also reviewed.

The fire protection program was briefly reviewed and no major changes were noted since the last inspection. The insurance underwriter had performed a site inspection since the last NRC inspection and had reported results by letter dated July 8, 1983.

No violations or deviations were identified.

5. Internal Exposure Control

a. Air Sampling

The licensee has continued to monitor the plant work locations continuously using 45 sample heads connected to a central plant vacuum system. When the miscellaneous digestion facility is operating, three additional samples are collected in that area.

Sample filters have been replaced every 8 hours and have been analyzed by a gas proportional counter to determine gross alpha activity.

The samplers normally operate at 1 CFM and are calibrated weekly using a hand held rotometer which is periodically compared with a laboratory grade rotometer. The licensee presented a letter dated January 19, 1981, from the manufacturer of the flowtubes used in the lab rotometer. The letter stated that the flowtubes are tested against master flowmeter tubes which have been calibrated on equipment that is traceable to the National Bureau of Standards. (NBS). This would indicate that the samplers have been calibrated with no better than a quaternary traceable NBS standard, when various industry standards suggest a primary or secondary standard. Such is recommended by Regulatory Guide 8.25, "Calibration and Error Limits of Air Sampling Instruments for Total Volume of Air Sampled," dated August 1980. This was identified as an open item (040-08027/8401-01), and the licensee committed to correct the action.

Air sample data were somewhat lower than that noted by this NRC inspector during the 1982 inspection. The highest sample result noted was 32 times the maximum permissible concentration (MPC) for natural uranium. Data for 1982 had ranged to as high as 85 MPCs. Also, the number of high sample results was lower.

The licensee has also assigned use of lapel samplers to workers when special work is not in the vicinity of a sample head. Sample results with this equipment have ranged to 40 MPCs for the several daily fluorination tower ash receiver changeouts. Such work has been performed using supplied-air respirators. Much of the work with lapel samplers has been in the contaminated waste storage yard. Lapel samplers have been calibrated using a bubble tube, a primary standard.

The NRC inspector used the licensee's certified calibration source to check the calibration of the gas proportional alpha counter. The licensee's results were verified. The licensee has also used a 0.6 absorption factor to compensate for alpha absorption in filter paper.

After review of air sampling data, the NRC inspector determined that airborne radioactivity areas were posted as required by 10 CFR Part 20.203(d). Sample heads appeared to be located so as to be representative of worker breathing zones. The licensee pointed out that the sample head in the sampling plant had been relocated after discussions with the NRC inspector the previous year.

b. Exposure Determination

The NRC inspector reviewed contamination incident reports and weekly exposure summary records which summarized calculated internal exposure in MPC-hours for each worker each week. Both fixed sample head data and lapel sampler data have been combined for these records. Workers have been required to submit daily time cards tabulating the number of hours spent in each of the major plant process areas.

The licensee has conservatively considered all airborne uranium to be soluble even though some components have consisted of insoluble UO_2 and high-fired yellowcake. As in years past, many exposures to highly soluble UF_6-UO_2F_2 were recorded.

Contamination incident reports have been completed whenever any sample has exceeded 3 MPC. The licensee issued 33 of these reports between January 4 and May 19, 1984. These have always been associated with special work or minor plant incidents. In these cases, worker exposure has been calculated by averaging all samplers in a particular process area and multiplying by the area assignment duration. Respiratory protection factors have been credited where applicable. These data plus routine occupancy in process areas and associated sampler data have been inputs to a computer program which outputs weekly exposure for each worker.

The highest recorded weekly exposure was 38.8 MPC-hours which is 97 percent of the weekly limit. There were many other exposures in excess of 30 MPC-hours. The NRC inspector noted that calculation of these exposures was based on parameters whose certainty was relatively imprecise, such as:

1. Air sampler flow rate data (due to a questionable calibration standard as previously indicated).

2. Area occupancy time data (due to inherent errors associated with worker time cards).

3. Data representing the average concentration of numerous air samplers in a given work area.

The licensee stated that in the future a special review would be performed for individuals whose weekly exposure exceeded 30 MPC-hours. This review would include examination of precise work locations and associated occupancy intervals. This commitment will be considered as an open item (040-08027/8401-02) and will be reviewed during a subsequent inspection.

Several compensating, conservative factors were also acknowledged including (1) assumption of exclusively soluble uranium even though some insoluble material is also likely, and (2) use of the insoluble MPC which is 26 percent lower than that for soluble uranium.

c. Respiratory Protection

The licensee was found to have continued use of respiratory protective equipment as in past years. Half-masks have been used in the sampling plant, while full-face and supplied-air respirators have been used in other parts of the facility. Exposure records indicated that proper protection factors had been applied for those workers wearing respirators. A polydisperse DOP man-test system with a fitting chamber has been used to fit new hires. No other worker had undergone repeat fit testing since 1978.

Records also indicated that personnel had been trained and had been administered written exams. Records included annual vital capacity lung test results and comprehensive written procedures. Workers were observed to be properly utilizing respirators, and equipment cleaning, inspection, and storage facilities were noted to be adequate.

d. Bioassay

Bioassay data were found to reflect the lower air concentration data. The highest urine sample result was 1,000 ug/l, and rarely was a result in excess of 100 ug/l. The higher data was associated with incidents involving UF_6 which characteristically exhibits rapid clearance. The licensee has evaluated exposures in conjunction with Regulatory Guide 8.22, "Bioassay at Uranium Mills," and has required workers to be restricted from further exposure in those cases where further sampling has been necessary. None of the exposure incidents have resulted in derived intakes in excess of 9.6 mg (40 MPC-hours).

Urine samples have been fluorometrically analyzed at the site lab, and 10 percent of the samples have been split with a commercial lab. Comparison of data between the two laboratories were noted to be within acceptable agreement. Blank and spike samples have also been appropriately included with each process batch.

All workers have been sampled under the program at least twice per month. Shift workers have been required to submit a sample at the beginning of each 10-day shift cycle.

The licensee has continued to subject half of the plant staff to in-vivo counting each year. During August 19 to September 1, 1983,

65 workers were counted, and the highest recorded result was 11.1 nanocuries of natural uranium.

No violations or deviations were noted.

6. External Exposure and Contamination Control

Monthly film badge data for 1983 were reviewed, and the highest penetrating, whole body exposure for the year was 810 millirems. The licensee has also performed routine monthly radiation surveys using an ion chamber device in and around the plant buildings. As in previous years, the highest levels were associated with the ash receiver enclosures which were posted and enclosed.

Also reviewed were weekly survey data for fixed and removable alpha contamination at approximately 100 locations in process areas and in nonprocess areas such as lunch rooms, change rooms, and offices. Data were somewhat lower than for previous years, and whenever areas were identified as contaminated, corrective action appeared to be prompt as evidenced by survey records.

Workers were observed to be wearing company supplied protective clothing including footwear. Several plant locations were provided for workers to exchange dirty canvass shoe covers for clean ones. Workers were required to shower and/or survey themselves prior to exiting the process areas. Records were reviewed which indicated that weekly spot surveys of personnel leaving the change rooms were performed by the health physics staff.

Also reviewed were surveys for both fixed and removable contamination on materials and equipment released for use offsite. The licensee also stated that the security staff will not release a shipment from the site unless it is accompanied by a health physics release form. Records were also reviewed relating to contamination surveys for trucks arriving the site with yellowcake as well as those departing the site after unloading and those leaving with UF_6 cylinders.

The inventory of portable survey instruments appeared to be sufficient to support the radiation safety program. Instrument calibration methods and records were also found to be appropriate.

No violations or deviations were noted.

7. Waste Management and Environmental Monitoring

License Amendment 25 requires the licensee to submit to NRC a comprehensive plan for the disposal of solid wastes by January 24, 1985. This plan is currently being developed by the licensee. The NRC inspector

reviewed the status of both the solid and liquid waste programs as reported below.

The licensee has stored liquid raffinate effluent from the solvent extraction process in the four clarifier ponds west of the facility buildings. Barium coprecipitation treatment equipment near these ponds is used to form and remove from the raffinate most of the solids containing radioactive material. The treated raffinate solution has been stored in Ponds 3E, 3W, and 4, while the sludge has been maintained in the clarifier ponds. The raffinate sludge, which contains approximately 0.3 percent uranium, is being stored in anticipation of approval of a volume reduction process and the subsequent shipment of the solids for reprocessing at the licensee's uranium mill in New Mexico. The licensee is awaiting approval to continue deep-well injection of most of the raffinate solution although some, approximately a third of the amount produced annually, may continue to be dispersed as fertilizer on licensee-owned land. During 1984, the licensee continued fertilizer application on the 160, 270, and 885 acre plots adjacent to the plant site, as well as the Rabbit Hill site approximately 15 miles to the west.

A separate solid waste, fluoride sludge, containing much smaller quantities of radioactivity, is currently being stored in a settling basin and a holding pond on the southwest quadrant of the site. Miscellaneous dry solid scrap has been compacted into approximately 140 large bales and has been stored on the far north side of the site along with approximately 2,000 barrels of other miscellaneous, potentially contaminated waste materials.

During a tour of the outlying portions of the project site on July 18, 1984, the NRC inspector reviewed the licensee's waste processing and storage facilities. Although freeboards were adequate, large quantities of raffinate were in storage in Ponds 2, 3, and 4. Large quantities of hay produced on the fertilized acreage were being stored on licensee property nearby. The NRC inspector also reviewed the clarifier ponds, the fluoride sludge ponds, the deep well used to inject raffinate underground, the barium coprecipitating treatment equipment, and the compounds where the bales and barrels of dry solids were stored. The catchment basins and pumpback stations south and west of Pond 2 were also noted.

Prior to the site inspection, the NRC inspector reviewed in the regional office the semiannual effluent monitoring reports issued by the licensee for the first and second halves of 1983 and found them to be in compliance with 10 CFR Part 40.65. Air effluent data were reviewed in detail at the site for each of the seven source terms identified in the application plus the newly instituted miscellaneous digestion dust collector exhaust. The NRC inspector noted that the HF offgas scrubber exhaust was being sampled in accordance with the licensee's response to the previous NRC inspection except that a three-element train was being utilized instead of the

two-element one originally described. The sample was first being bubbled through a potassium hydroxide solution before passing through two series particulate filters. Data review by the NRC inspector indicated that no quarterly release of total airborne effluents exceeded the limit of 45 mCi required by Amendment 9.

Site boundary air sample data were reviewed and found to be below the MPC for unrestricted areas. The licensee also presented solubility analysis and particle size distribution data for a composited air sample close to the nearest resident. Both types of analysis were performed by the licensee's Technical Center in Oklahoma City. Solubility data were reviewed for each quarterly analysis from the fourth quarter of 1981 through the fourth quarter of 1982. Later analyses were incomplete. Data generally indicated 40 percent Class Y and 60 percent Class D. Semiannual particle size analyses were reviewed for 3 years from April 1980 to April 1983. Generally, the data reflected an AMAD of less than 1 micron for 80 percent of the particles.

Data pertaining to radioactivity in surface water were reviewed and found to be comparable to those of past years. Sampling has been continuous at the combined effluent stream and monthly or quarterly at the other locations such as site ponds, rivers, and reservoirs. Uranium concentrations in the effluent stream have been less than 6 percent of the unrestricted area MPC.

The licensee has also monitored 67 wells on the project site. The highest data were associated with Wells 2314 and 2319 southwest of Pond 2. Vegetation, soil, and bottom sediment sample data were also reviewed, and no trends were identifiable. Samples have been analyzed at the licensee's Technical Center.

No violations or deviations were noted.

8. Fixed Gauge Operations

The NRC inspector also reviewed licensed activities associated with Byproduct Material License 35-12636-03 which authorizes possession and use of fixed nuclear density gauges. The licensee was found to possess 12 gauges, all of which were authorized by the license and were properly labeled in accordance with 10 CFR Part 20.203. Records of receipt were available as required by 10 CFR Part 30.51(a), and installation survey records completed by the manufacturer were also available for review. The licensee also had records of semiannual physical inventories as required by License Condition 16.

However, three violations of NRC license conditions were identified during the inspection. The first related to the removal from service, relocation, and reinstallation of gauges by the licensee even though such

activities are not authorized under the license. At least five of the gauges had been previously removed from pipes or bins tc which they had originally been attached. Two had been reinstalled on bins in the third floor hydrofluorination area on licensee constructed stanchions approximately 7 inches from the bin. The NRC inspector was able to place a survey meter near the open shutter of either device and measure exposure rates in excess of 1,000 mR/h. Failure to have device relocation and installation performed by an authorized agent was identified as a violation of License Condition 15.

The second violation related to the three relocated gauges that had been stored on a pallet in an adjacent licensee warehouse. Two of the gauge shutters were locked in the closed position, but one shutter, although closed, was not locked and could be hand operated. Failure to lock the shutter was identified as a violation of License Condition 17 which requires that licensed material shall be possessed and used in accordance with statements made in the license application. Item 13 of the application stated that "Shutters of liquid density guages [sic] will be locked in the "closed" position whenever the guages [sic] are not installed in pipes."

The third violation regarded licensee failure to conduct leak tests every 6 months on a sealed source in a Technical Operations Model 571 calibration unit containing 15 millicuries of cobalt-60. Such a test, although conducted and found to yield acceptable results on June 8, 1984, had not been conducted between August 1982 and November 1983, an interval of 15 months. This deficiency was identified as a violation of License Condition 13.A.(1). Other sealed sources had been tested at their proper 3-year intervals, and sample analysis at the Kerr-McGee Cimarron facility indicated acceptable results.

9. Independent Measurements

The NRC inspector performed exposure rate surveys throughout the plant on two occasions and found all areas to be properly posted. No area directly accessible to personnel, except near the nuclear gauges as previously noted, exhibited rates in excess of 30 mR/h.

10. Exit Interview

The NRC inspector met with licensee management (reference paragraph 1) at the conclusion of the inspection on July 19, 1984. The NRC inspector summarized the purpose, scope, and findings of the inspection.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76011

AUG 9 1984

BETWEEN: William O. Miller, Chief
License Fee Management Branch
Office of Administration

R. J. Everett, Chief
Material Radiation Protection Section, TPB,
DV&TP, RIV

LICENSEE FEE TRANSMITTAL

A. REGION IV

1. APPLICATION ATTACHED

Applicant/Licensee: Kerr-McGee Corp.

Application Dated: July 26, 1984

Control No.: 60349

License No.: 35-12636-03 (030-05948)

2. FEE ATTACHED

Amount: $120-

Check No.: 020888

3. COMMENTS

Signed Laura Hurley

Date July 30, 1984

B. LICENSEE FEE MANAGEMENT BRANCH 03120 8/8 X

1. Fee Category and Amount: 3P - $120

2. Correct Fee Paid. Application may be processed for:

Amendment _____

Renewal ✓

License _____

Signed D Jackson

Date 8/6/84

A/B-39