

AUG 2 1979

Distribution:

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→ Docket File 40-8027

WTCrow

ALSoong

DWeiss

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

FROM: Sean Soong

SUBJECT: COSTS AND MANHOURS FOR LICENSING ACTION

The contract costs incurred and manhours used in reviewing the application dated April 4, 1979, for amendment of License No. SUB-1010, Docket No. 40-8027, are tabulated below.

1. Name & Address: Kerr-McGee Nuclear Corporation
Oklahoma City, Oklahoma 73125
2. a) Project Control No. 79086 AS b) TAC No.
3. Completion Date: July 20, 1979
4. Fee Type Identified by Applicant: Minor Amendment
5. Contract Costs Associated with this License Application:
 - a) For environmental review \$ N/A
 - b) For safety review \$ N/A
 - c) Total contract costs \$ N/A
6. TAC Work by NRR: N/A hours
7. Safeguards Time: N/A hours
8. Fuel Cycle Safety and Licensing Manhours:
 - a) Environmental review 12 hours
 - b) Safety review 26 hours
 - c) Total 38 hours

8512170558 790802
PDR ADOCK 04008027
C PDR

Original signed by

Original signed by:
W. T. Crow

Project Manager, Sean Soong

07/30/79

Approved by:

OFFICE →

W. T. Crow, Section Leader

FCUF *for*

FCUF *WTC*

SURNAME →

ALSoong:lse

WTCrow

DATE →

07/31/79

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Distribution:

→ FCUF r/f
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→ Docket No. 40-8027
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IE HQ (2)
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EYShum
WANixon

FCUF:EYS
40-8027

Kerr-McGee Nuclear Corporation
ATTN: Mr. W. J. Shelley, Director
Regulation and Control
Kerr-McGee Center
Oklahoma City, Oklahoma 73125

Gentlemen:

This is to confirm the telephone conversation between your Mr. W. J. Shelley and Messers. W. A. Nixon and E. Y. Shum of my staff on July 31, 1979. As discussed, the NRC is currently evaluating all uranium fuel cycle facilities to demonstrate compliance with EPA's "Environmental Radiation Protection Standards for Nuclear Power Operations," 40 CFR 190, which become effective and must be enforced after December 1, 1979. In assessing your facility, the staff finds that additional information is needed in order to complete our evaluation. The required information is identified in the attachment to this letter.

It is requested that the additional information be submitted to us by September 4, 1979. If you have further questions, please call me or Dr. E. Y. Shum of my staff at (301) 427-4510.

Sincerely,

Original signed by:
W. T. Crow

W. T. Crow, Section Leader
Uranium Process Licensing Section
Uranium Fuel Licensing Branch
Division of Fuel Cycle and
Material Safety

7910090588
Enclosure: As stated

OFFICE →	FCUF <i>WTC</i>	FCUF <i>WTC</i>				
SURNAME →	EYShum:yah	WTCrow				
DATE →	8/1/79	8/1/79				

ADDITIONAL INFORMATION REQUIRED FOR ENVIRONMENTAL
IMPACT ASSESSMENT IN CONNECTION WITH 40 CFR 190

1. Please summarize the semi-annual radiological air and liquid effluents release rates and the plant operation rate for the past four (4) years. What would be the plant operation rate projected in the next three (3) years?
2. Please locate, by direction and distance with respect to plant location, the residences located within one mile radius of your facility. Identify, by direction and distance from the plant, any land within a one mile radius used for ranching, agricultural use or vegetable gardening.
3. Please identify all of the release points (or stacks) and provide information on the radioactivity release rate, height, exit velocity, and stack diameter. Also identify and estimate with justification (such as with reference to the operations conducted or process flow charts) the % of the major uranium compounds or compounds of other nuclides released from each stack.
4. Please describe in detail the current effluent control system used for each release point for gaseous and liquid discharges.
5. Please summarize the radiological environmental monitoring results for the past three (3) years on air, water, soil, vegetation, etc. and identify on a map the locations of these monitoring stations. The frequency of sampling and the detection limit of the analytical technique should also be specified.
6. Is there any on-site meteorological data available? Please provide at least five years record on meteorological data (joint wind frequency of direction-speed-stability information) at the nearest weather station.

Distribution:

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~~Docket File 40-8027~~
PDR
SHO
IE HQ (2)
JCatania
BBrooks
ACabell
JPartlow
JRobertson
DWeiss
WTCrow
ALSoong
WANixon
JRothfleisch
Region IV, I&E

JUL 20 1979

FCPF:ALS
40-8027
SUB-1010, Amendment No. 6

Kerr-McGee Nuclear Corporation
ATTN: Mr. W. J. Shelley, Director
Regulation and Control
Kerr-McGee Center
Oklahoma City, Oklahoma 73102

Gentlemen:

In accordance with your application dated April 4, 1979, and pursuant to Title 10, Code of Federal Regulations, Part 40, Source Material License No. SUB-1010 is hereby amended to authorize the remodeling of Pond No. 1 and the installation of clarifier-A subject to the following condition:

19. Clarifier-A shall be built in accordance with the attached Regulatory Guide 3.13, "Guide for Acceptable Waste Storage Method at UF₆ Production Plants" dated October 1973.

In order to assure that equipment and facilities being released for unrestricted use are evaluated to consistent criteria, the following condition is being added to your license:

20. Notwithstanding the criteria in table II on page 3-7 of license application dated December 30, 1976, the release of facilities and equipment for unrestricted use shall be in accordance with the attached Annex C, "Guidelines for Decontamination for Unrestricted Use or Termination of Licenses for Byproduct, Source or Special Nuclear Material" dated November 1976.

Please note that the above condition does not specify any criteria for radioactive contamination in soil. In the absence of such criteria, no contaminated soil (even if it contains less than 20 pCi/gm uranium) shall be removed from the site without specific approval from the NRC.

All other conditions of this license shall remain the same.

OFFICE →	7948210-641 2pp					
SURNAME →						
DATE →						

Mr. W. J. Shelley

- 2 -

The above conditions were discussed and agreed upon between your Mr. W. Shelley and Mr. A. Soong of my staff on July 3, 1979.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by:
W. T. Crow

W. T. Crow, Section Leader
Uranium Fuel Fabrication Section
Fuel Processing & Fabrication Branch
Division of Fuel Cycle and
Material Safety

Enclosure:
As stated

07/16/79 Bin #2

OFFICE	FCPF <i>Soong</i>	FCPF <i>WTC</i>	FCPF <i>WTC</i>		
SURNAME	ALSoong:lse	WANixon	WTCrow		
DATE	07/16/79	07/14/79	07/19/79		

JUL 20 1979

Distribution:

FCPF r/f
NMSS r/f
Docket File 40-8027
PDR
IE HQ (2)
WTCrow
WANixon
ALSoong

DOCKET NO.: 40-8027

APPLICANT: Kerr-McGee Nuclear Corporation (KM)

FACILITY: Sequoyah Uranium Hexafluoride Production Plant

SUBJECT: SAFETY EVALUATION REPORT - LICENSE AMENDMENT
APPLICATION FOR AUTHORIZATION TO REMODEL RAFFINATE
STORAGE POND NO. 1
LICENSE NO. SUB-1010
AMENDMENT NO. 6

REVIEWER: A. L. Soong

Background

The KM Sequoyah Facility is currently licensed to produce 10,000 tons per year of uranium as UF_6 from ore concentrates. The process employed, generally referred to as the "Wet Process", involves dissolution of ore concentrates in nitric acid followed by purification of the resulting impure uranyl nitrate solution by treatment in a solvent extraction circuit. The impurities are rejected from the circuit in the form of a thin slurry of liquid and solids termed raffinate which contains nitric acid, ammonium nitrate and metallic salts along with uranium and its radioactive decay products. A typical analysis of the raffinate reported by KM is shown in Table I of this report. At present time, the raffinate solution is produced at a rate of about 10 million gallons annually and is stored in three existing ponds on site with a total storage capacity of 40 million gallons. Only one of the three ponds (no. 3) is lined with Hypalon lining material. Hypalon is a type of polymer made from Synthetic Rubber which offers strong resistance to a wide range of chemical and is impermeable to liquid and gases (with permeability of at most 10^{-9} cm/sec as compares with natural clay's 10^{-7} cm/sec). KM has indicated previously that a Hypalon-lined pond at its Cimarron facility containing a similar solution for a period of seven years has shown no observable deterioration.

By letter dated April 4, 1979, KM requested authorization to remodel raffinate storage pond no. 1 by constructing a Hypalon lined new pond (Clarifer-A).

OFFICE						
SURNAME	7908210 48 7pp					
DATE						

Discussion

Since Clarifier-A will be built at the identical site of the existing pond no. 1, KM will remove the raffinate sludge and earth which has a uranium content greater than 20 pCi/gm from the pond no. 1 prior to installing Hypalon lining in the Clarifier-A. The sludge and earth removed will be placed in pond no. 2. The above quoted uranium level is being used as the exempt limits by the Oklahoma State Radiation Protection Regulations. Because NRC has not yet developed a similar limit for soil, KM will not be allowed to remove contaminated excavated earth or sludge from the site even if it is below the 20 pCi/gm limit.

Clarifier-A consists of four separate basins, each with a planned capacity of 1.86×10^6 gallons. The interior of Clarifier-A will be lined with Hypalon liners to prevent seepage. Clarifier-A will be constructed similarly to pond no. 3 which was approved by the NRC in 1978, and in accordance with the Regulatory Guide 3.13, "Guide for Acceptable Waste Storage Methods at UF_6 Production Plants". Once Clarifier-A is in use, liquid samples will be taken routinely from a leakage detecting system which will be installed at the bottom of the liners. Action levels and corrective action to be taken in case of leakage from Clarifier-A have been proposed by KM and have been reviewed by the staff and we considered acceptable.

In order to ensure that the surface contamination level on equipment (such as trucks, earthmoving equipment, etc. which are used for this operation) meet established criteria prior to release for unrestricted use, the staff added Annex C, "Guidelines for Decontamination of Facility and Equipment Prior to Release for Unrestricted Use or Termination of License for Byproduct, Source, or Special Nuclear Material" as a license condition.

The amendment application was discussed with Charles Cain of Region IV, I&E principal inspector for the KM's Sequoyah facility, on July 12, 1979, and he saw no reason, from a regulatory point of view, why the amendment to authorize construction of the pond should not be granted.

Conclusion

On the basis of the finding in the current assessment, it is recommended that Source Material No. SUB-1010 be amended to authorize the remodeling of raffinate storage pond no. 1 by installing the Hypalon lining in accordance with the application and subject to the following conditions:

19. Clarifier-A shall be built in accordance with attached Regulatory Guide 3.13.

OFFICE ➤						
SURNAME ➤						
DATE ➤						

20. Notwithstanding the criteria in Table II on page 3-7 of license application dated December 30, 1976, the release of facilities and equipment for unrestricted use shall be in accordance with the attached Annex C.

Furthermore, the licensee shall also be notified that the NRC does not specify any exempt limit for radioactive level in soil, therefore, contaminated sludge and excavated earth even if it contains less than 20 pCi/gm uranium shall not be removed from the site without specific approval from the NRC.

Original signed by

A. L. Soong
Uranium Fuel Fabrication Section
Fuel Processing & Fabrication Branch
Division of Fuel Cycle and
Material Safety

Enclosures:
As stated

07/16/79 Bin #3 & 4

OFFICE	FCPF <i>Soong</i>	FCPF <i>W Nixon</i>	FCPF <i>W Crow</i>			
SURNAME	AL Soong: 1 se	W Nixon	W Crow			
DATE	07/19/79	07/20/79	07/20/79			

U.S. ATOMIC ENERGY COMMISSION
MATERIALS DATA INPUT S/SNMPCs # 79086
1 - FILE COPY

A. TYPE OF ACTION AND IDENTIFICATION CODES

<input type="checkbox"/> NEW LICENSE	<input type="checkbox"/> AMENDMENT TO RENEW LICENSE	<input type="checkbox"/> AMENDMENT TO TERMINATE	<input type="checkbox"/> VOID	DOCKET NUMBER	MAIL CONTROL NUMBER	CH. NAME ADDRESS
<input type="checkbox"/> NEW LICENSE AND NEW LICENSEE	<input checked="" type="checkbox"/> OTHER AMENDMENT	<input type="checkbox"/> CLERICAL CHANGE NO AMENDMENT		040-08027	12478	<input type="checkbox"/>

B. INDICATIVE INFORMATION:

INDIVIDUAL OR ORGANIZATION	NAME (LAST, FIRST, MIDDLE)	NAME (LAST, FIRST, MIDDLE)			
	NAME (LAST, FIRST, MIDDLE)	NAME (LAST, FIRST, MIDDLE)			
	NAME (LAST, FIRST, MIDDLE)	NAME (LAST, FIRST, MIDDLE)			
ORGANIZATION	ORGANIZATION NAME (ALPHABETIC SEQUENCE)				
	Kerr-McGee Nuclear Corporation				
DEPARTMENT OR BUREAU					
ADDRESS	BUILDING, STREET	CITY	STATE	ZIP CODE	
	Kerr-McGee Center	Oklahoma City	OK	73102	
APPLICANT	TYPE OF APPLICANT	DATE REQUEST RECEIVED	INSTITUTION CODE	PENDING PROG. CODE	ACTUAL PROG. CODE
	<input type="checkbox"/> U.S. GOVERNMENT AGENCY <input type="checkbox"/> INDIVIDUAL LICENSEE <input checked="" type="checkbox"/> ORGANIZATIONAL LICENSEE	04/11/74	12030		
SECONDARY PROGRAM CODES AS REQUIRED:					
#1		#2	#3	#4	#5
LICENSE NUMBER		DATE LICENSE ISSUED OR ACTION COMPLETED	EXPIRATION DATE		
SUB-1010		7/20/79			

C. STATISTICAL INFORMATION:

MEDICAL CATEGORY:					
<input type="checkbox"/> FOR HUMAN USE ONLY	<input type="checkbox"/> FOR HUMAN AND NONHUMAN USE	<input type="checkbox"/> FOR NONHUMAN USE ONLY			
POSSESSION OF THE MATERIAL IS AUTHORIZED IN ONE OF THE FOLLOWING AREAS:					
<input type="checkbox"/> SAME AS "STATE" IN ADDRESS	<input type="checkbox"/> ALL STATES	<input type="checkbox"/> ALL NON-AGREEMENT STATES			
AND/OR IN THE STATE(S), TERRITORY(S), COUNTRY CHECKED BELOW:					
ALABAMA -AL	GEORGIA -GA	MARYLAND -MD	NEW JERSEY -NJ	SOUTH CAROLINA -SC	WYOMING -WY
ALASKA -AK	HAWAII -HI	MASSACHUSETTS -MA	NEW MEXICO -NM	SOUTH DAKOTA -SD	
ARIZONA -AZ	IDAHO -ID	MICHIGAN -MI	NEW YORK -NY	TENNESSEE -TN	AMERICAN SAMOA -AS
ARKANSAS -AR	ILLINOIS -IL	MINNESOTA -MN	NORTH CAROLINA -NC	TEXAS -TX	CANAL ZONE -CZ
CALIFORNIA -CA	INDIANA -IN	MISSISSIPPI -MS	NORTH DAKOTA -ND	UTAH -UT	GUAM -GU
COLORADO -CO	IOWA -IA	MISSOURI -MO	OHIO -OH	VERMONT -VT	PUERTO RICO -PR
CONNECTICUT -CT	KANSAS -KS	MONTANA -MT	OKLAHOMA -OK	VIRGINIA -VA	VIRGIN ISLANDS -VI
DELAWARE -DE	KENTUCKY -KY	NEBRASKA -NB	OREGON -OR	WASHINGTON -WA	
WASHINGTON DC -DC	LOUISIANA -LA	NEVADA -NV	PENNSYLVANIA -PA	WEST VIRGINIA -WV	CANADA -CN
FLORIDA -FL	MAINE -ME	NEW HAMPSHIRE -NH	RHODE ISLAND -RI	WISCONSIN -WI	

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

SOURCE MATERIAL CEILING			<input type="checkbox"/> GRAMS	SNM CEILING			<input type="checkbox"/> GRAMS	<input type="checkbox"/> "X" HERE IF FOR POWER REACTOR	
			<input type="checkbox"/> KILOGRAMS				<input type="checkbox"/> KILOGRAMS		
MAT	AMOUNT	UNIT	CONFIG	ENRICH	MAT	AMOUNT	UNIT	CONFIG	ENRICH
U5		<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS				<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS	
U3		<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS				<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS	
PU		<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS				<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS	
UR		<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS				<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS	
TH		<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS				<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS	
		<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS				<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS	
H3		<input type="checkbox"/> CURIES <input type="checkbox"/> MILLICURIES	<input type="checkbox"/> MICROCURIES	RIS CODES					

U5=U235, U3=U233, PU=PLUTONIUM, UR=URANIUM, TH=THORIUM, H3=TRITIUM, G=GRAMS,
Kg=KILOGRAMS, S=SEALED, UNS=UNSEALED



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUL 20 1979

DOCKET NO.: 40-8027

APPLICANT: Kerr-McGee Nuclear Corporation (KM)

FACILITY: Sequoyah Uranium Hexafluoride Production Plant

SUBJECT: SAFETY EVALUATION REPORT - LICENSE AMENDMENT
APPLICATION FOR AUTHORIZATION TO REMODEL RAFFINATE
STORAGE POND NO. 1
LICENSE NO. SUB-1010
AMENDMENT NO. 6

REVIEWER: A. L. Soong

Background

The KM Sequoyah Facility is currently licensed to produce 10,000 tons per year of uranium as UF_6 from ore concentrates. The process employed, generally referred to as the "Wet Process", involves dissolution of ore concentrates in nitric acid followed by purification of the resulting impure uranyl nitrate solution by treatment in a solvent extraction circuit. The impurities are rejected from the circuit in the form of a thin slurry of liquid and solids termed raffinate which contains nitric acid, ammonium nitrate and metallic salts along with uranium and its radioactive decay products. A typical analysis of the raffinate reported by KM is shown in Table I of this report. At present time, the raffinate solution is produced at a rate of about 10 million gallons annually and is stored in three existing ponds on site with a total storage capacity of 40 million gallons. Only one of the three ponds (no. 3) is lined with Hypalon lining material. Hypalon is a type of polymer made from Synthetic Rubber which offers strong resistance to a wide range of chemical and is impermeable to liquid and gases (with permeability of at most 10^{-9} cm/sec as compares with natural clay's 10^{-7} cm/sec). KM has indicated previously that a Hypalon-lined pond at its Cimarron facility containing a similar solution for a period of seven years has shown no observable deterioration.

By letter dated April 4, 1979, KM requested authorization to remodel raffinate storage pond no. 1 by constructing a Hypalon lined new pond (Clarifer-A).

Discussion

Since Clarifier-A will be built at the identical site of the existing pond no. 1, KM will remove the raffinate sludge and earth which has a uranium content greater than 20 pCi/gm from the pond no. 1 prior to installing Hypalon lining in the Clarifier-A. The sludge and earth removed will be placed in pond no. 2. The above quoted uranium level is being used as the exempt limits by the Oklahoma State Radiation Protection Regulations. Because NRC has not yet developed a similar limit for soil, KM will not be allowed to remove contaminated excavated earth or sludge from the site even if it is below the 20 pCi/gm limit.

Clarified-A consists of four separate basins, each with a planned capacity of 1.86×10^6 gallons. The interior of Clarifier-A will be lined with Hypalon liners to prevent seepage. Clarifier-A will be constructed similarly to pond no. 3 which was approved by the NRC in 1978, and in accordance with the Regulatory Guide 3.13, "Guide for Acceptable Waste Storage Methods at UF₆ Production Plants". Once Clarifier-A is in use, liquid samples will be taken routinely from a leakage detecting system which will be installed at the bottom of the liners. Action levels and corrective action to be taken in case of leakage from Clarifier-A have been proposed by KM and have been reviewed by the staff and we considered acceptable.

In order to ensure that the surface contamination level on equipment (such as trucks, earthmoving equipment, etc. which are used for this operation) meet established criteria prior to release for unrestricted use, the staff added Annex C, "Guidelines for Decontamination of Facility and Equipment Prior to Release for Unrestricted Use or Termination of License for Byproduct, Source, or Special Nuclear Material" as a license condition.

The amendment application was discussed with Charles Cain of Region IV, I&E principal inspector for the KM's Sequoyah facility, on July 12, 1979, and he saw no reason, from a regulatory point of view, why the amendment to authorize construction of the pond should not be granted.

Conclusion

On the basis of the finding in the current assessment, it is recommended that Source Material No. SUB-1010 be amended to authorize the remodeling of raffinate storage pond no. 1 by installing the Hypalon lining in accordance with the application and subject to the following conditions:

19. Clarifier-A shall be built in accordance with attached Regulatory Guide 3.13.

20. Notwithstanding the criteria in Table II on page 3-7 of license application dated December 30, 1976, the release of facilities and equipment for unrestricted use shall be in accordance with the attached Annex C.

Furthermore, the licensee shall also be notified that the NRC does not specify any exempt limit for radioactive level in soil, therefore, contaminated sludge and excavated earth even if it contains less than 20 pCi/gm uranium shall not be removed from the site without specific approval from the NRC.

Soong
A. L. Soong
Uranium Fuel Fabrication Section
Fuel Processing & Fabrication Branch
Division of Fuel Cycle and
Material Safety

Enclosures:
As stated

JUL 12 1979

FCPF:ALS
40-8027
SUB-1010, Amendment No. 5

Kerr-McGee Nuclear Corporation
ATTN: Mr. W. J. Shelley, Director
Regulation and Control
Kerr-McGee Center
Oklahoma City, Oklahoma 73102

Gentlemen:

Pursuant to Title 10, Code of Federal Regulations, Part 40, Source Material License No. SUB-1010 is hereby amended to authorize modification of the Sequoyah Facility environmental monitoring program by reducing the sampling frequency of the 26 sampling stations in accordance with the statement, representations, and conditions contained in your application dated March 10, 1978, and supplements dated December 12, 1978, March 26, 1979, and May 10, 1979, subject to the following condition:

18. If any groundwater sample from well M-5, M-6, M-7, M-8, M-9, or M-10 shows a concentration in excess of 10 mg/liter of nitrate (as N), the licensee shall investigate the cause of the elevated analytical result and promptly report to the NRC Inspection and Enforcement Region IV Office.

All other conditions of this license shall remain the same.

The above condition was discussed and agreed upon between your Mr. Sinke and A. L. Soong of my staff on May 17, 1979.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by:
W. T. Crow

W. T. Crow, Section Leader
Uranium Fuel Fabrication Section
Fuel Processing & Fabrication Branch
Division of Fuel Cycle and

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07/10/79 Bin #28

OFFICE	FCPF	FCPF	Material Safety		
SURNAME	ALSoong:lse	WANixon	WTCrow WTC		
DATE	07/11/79	07/11/79	07/11/79		

JUL 12 1979

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Docket File 40-8027
PDR
IE HQ (2)
WTCrow
WANixon
ALSoong

DOCKET NO.: 40-8027

APPLICANT: Kerr-McGee Nuclear Corporation (KM)

FACILITY: Sequoyah Uranium Hexafluoride Production Plant

SUBJECT: SAFETY EVALUATION REPORT -
LICENSE AMENDMENT APPLICATION FOR AUTHORIZATION
TO REDUCE THE SAMPLING FREQUENCY OF THE 26
ENVIRONMENTAL MONITORING LOCATIONS
LICENSE NUMBER: SUB-1010
AMENDMENT NO.: 5

REVIEWER: A. L. Soong

Background

The existing environmental monitoring program conducted by KM at the Sequoyah Facility consists of taking air, water, soil and vegetation samples routinely. Results to date indicate that there is no adverse off-site environmental impact resulting from the operation of the facility.

By letters dated March 10, 1978, December 12, 1978, March 26, 1979, and May 10, 1979, KM requested permission to reduce the sampling frequency of twenty-six (26) environmental monitoring stations as specified in Table 1 of this report.

Discussion

The previous three years' sampling data obtained from these sampling stations has been reviewed. The results show a constant and insignificant level both in radiological and non-radiological effluents (see licensee's submittals dated December 12, 1978).

The M series groundwater monitoring wells (see Table 1 and Figure 1) were installed in 1974 among others for monitoring the leak from raffinate storage pond #2. Since their installation, all monthly collected samples (except M-3 well which is not included in the application) have shown an insignificant level both in radiological and non-radiological contaminants. The result of the extensive studies regarding the leak of pond #2, however, may be summarized as follows (see KM's letter to NRC dated February 3, 1979, annual report concerning leakage of pond #2):

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DATE ➤						

- (a) The leak is confined to a relatively narrow band and extends to about 80 feet south of the pond.
- (b) The leakage rate from pond #2 is estimated at about one gallon per day which flows to the south. The leakage rate has remained essentially unchanged since 1976.

Based on the above conclusions, the staff considers that KM's request for quarterly sampling from the M series wells is adequate. Furthermore, in order to ensure an earlier warning of further spreading from the leakage, the staff proposed to the licensee that should an elevated nitrate level be detected in the M-6 to M-10 wells which are located about 800 feet south of the pond, KM shall investigate the possible cause of this nitrate elevation in the sample and report to the NRC.

On NRC's request as the result of the visit to the facility made by W. Nixon and A. Soong of NRC on March 21, 1979, the sampling frequency for surface water at Carlisle School (5800 ft. NE of the facility) is being increased to monthly rather than semi-annually as requested by KM. The semi-annually frequency at the School location will be allowed only when the rural water system to serve the school is installed and operating.

Recommendation

On the basis of the findings in the current assessment, it is recommended that Source Material License No. SUB-1010 be amended to authorize reducing the sampling frequency of the 26 environmental sampling stations in accordance with the application and subject to the following condition:

1. If any groundwater sample from well M-5, M-6, M-7, M-8, M-9, or M-10 shows concentration in excess of 10 mg/liter of nitrate (as N), the licensee shall investigate the cause of the elevated analytical result and promptly report to the NRC Inspection and Enforcement Region IV Office.

It is further recommended that all other conditions of this license remain the same.

Original signed by

A. L. Soong
Uranium Fuel Fabrication Section
Fuel Processing & Fabrication Branch
Division of Fuel Cycle and
Material Safety

07/10/79 Bins# 29 & 30

OFFICE	FCPF <i>ecny</i>	FCPF <i>W/N</i>	FCPF <i>W/C</i>		
SURNAME	ALSoong:lse	WANixon	WTCrow		
DATE	07/11/79	07/12/79	07/12/79		

TABLE 1. New Sampling Frequency of the
Environmental Sampling Stations That KM Requested

<u>Sample Point and I.D.</u>		<u>Existing Sample Frequency</u>	<u>KM Requested Sample Frequency</u>	<u>NRC's Action Frequency</u>
Arkansas River-Up	2203	Monthly (M)	Quarterly (Q)	Q
Arkansas River-Down	2204	M	Q	Q
Farm Pond	2205	Quarterly (Q)	Semi-Annual(SA)	SA
Farm Pond	2206	Q	SA	SA
Raw Water	2208	Q	SA	SA
Salt Fork River	2209	Q	SA	SA
School Pond	2210	Q	SA	Monthly
Monitor Well (MW)	2301	M	Q	Q
MW	2310	M	Q	Q
MW	2311	M	Q	Q
MW	2313	M	Q	Q
MW	2316	M	Q	Q
MW	2319	M	Q	Q
MW	ED-6	M	Q	Q
MW	ED-8	M	Q	Q
All* "M" Series MW's	M-1 - M-10	M	Q	Q
Fault Well	2307	Q	SA	SA
Residence Well	2320	Q	SA	SA

* Excluding M-3 Well

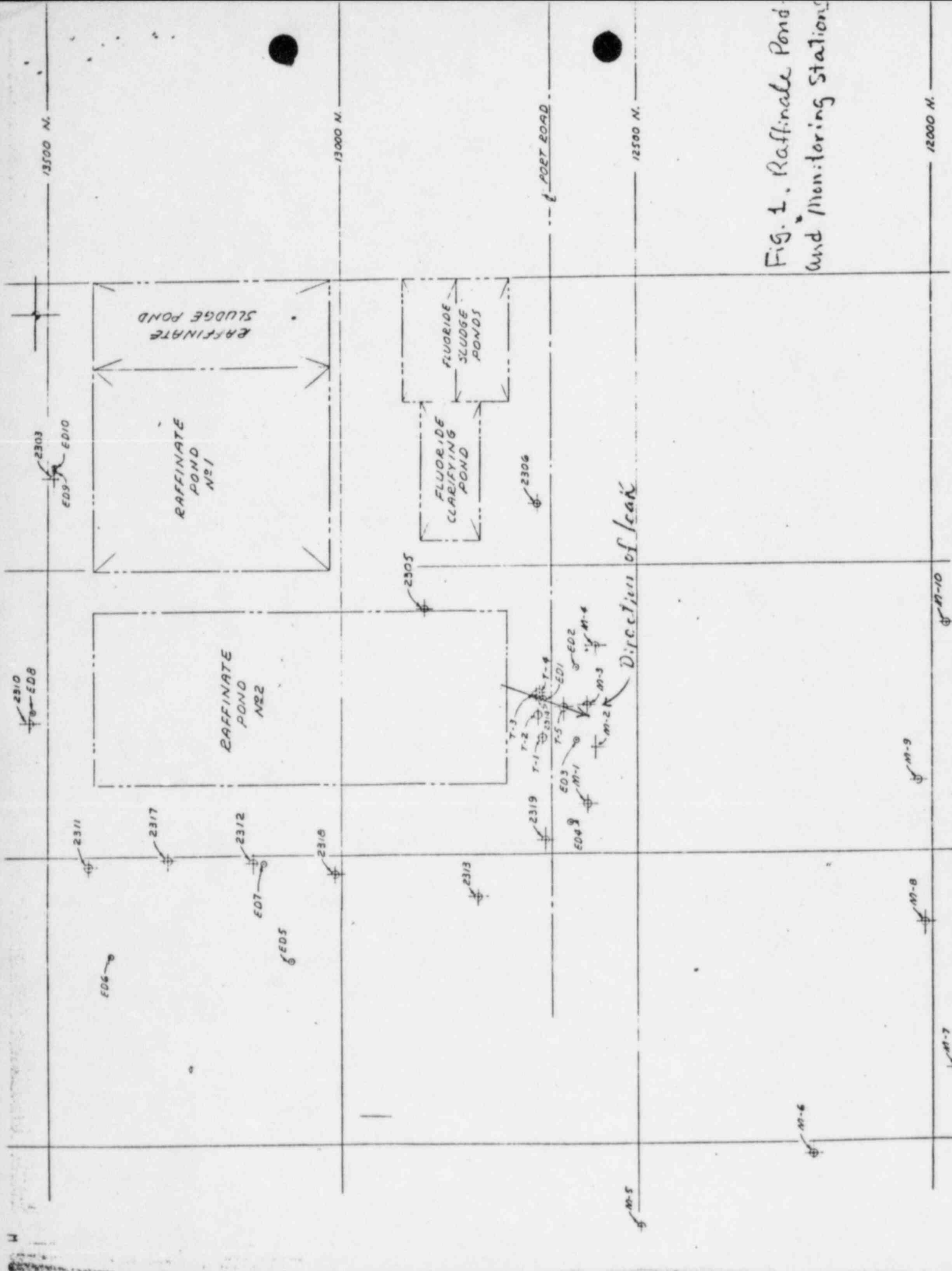


Fig. 1. Raffinate Pond and Monitoring Stations

MATERIALS DATA INPUT S/SNM

1 - FILE COPY

A. TYPE OF ACTION AND IDENTIFICATION CODES

<input type="checkbox"/> NEW LICENSE	<input type="checkbox"/> AMENDMENT TO RENEW LICENSE	<input type="checkbox"/> AMENDMENT TO TERMINATE	<input type="checkbox"/> VOID	DOCKET NUMBER	MAIL CONTROL NUMBER	CHANGE NAME/ ADDRESS
<input type="checkbox"/> NEW LICENSE AND NEW LICENSEE	<input checked="" type="checkbox"/> OTHER AMENDMENT	<input type="checkbox"/> CLERICAL CHANGE NO AMENDMENT		040-08027	03825	<input type="checkbox"/>

B. INDICATIVE INFORMATION:

NAME (LAST, FIRST, MIDDLE)	NAME (LAST, FIRST, MIDDLE)				
NAME (LAST, FIRST, MIDDLE)	NAME (LAST, FIRST, MIDDLE)				
NAME (LAST, FIRST, MIDDLE)	NAME (LAST, FIRST, MIDDLE)				
ORGANIZATION NAME (ALPHABETIC SEQUENCE)					
Kerr McGee Nuclear Corporation					
DEPARTMENT OR BUREAU					
BUILDING, STREET					
CITY	STATE	ZIP CODE			
Oklahoma City	OK	73125			
TYPE OF APPLICANT	<input type="checkbox"/> U.S. GOVERNMENT AGENCY	DATE REQUEST RECEIVED	INSTITUTION CODE	PENDING PROG. CODE	ACTUAL PROG. CODE
<input type="checkbox"/> INDIVIDUAL LICENSEE	<input checked="" type="checkbox"/> ORGANIZATIONAL LICENSEE	03/15/78	12636		
SECONDARY PROGRAM CODES AS REQUIRED					
#1	#2	#3	#4	#5	
LICENSE NUMBER	DATE LICENSE ISSUED OR ACTION COMPLETED	EXPIRATION DATE			
SUB-1010	07-18-79				

C. STATISTICAL INFORMATION:

MEDICAL CATEGORY:					
<input type="checkbox"/> FOR HUMAN USE ONLY	<input type="checkbox"/> FOR HUMAN AND NONHUMAN USE	<input type="checkbox"/> FOR NONHUMAN USE ONLY			
POSSESSION OF THE MATERIAL IS AUTHORIZED IN ONE OF THE FOLLOWING AREAS.					
<input type="checkbox"/> SAME AS "STATE" IN ADDRESS	<input type="checkbox"/> ALL STATES	<input type="checkbox"/> ALL NON-AGREEMENT STATES			
AND/OR IN THE STATE(S), TERRITORY(S), COUNTRY CHECKED BELOW:					
ALABAMA -AL	GEORGIA -GA	MARYLAND -MD	NEW JERSEY -NJ	SOUTH CAROLINA -SC	WYOMING -WY
ALASKA -AK	HAWAII -HI	MASSACHUSETTS -MA	NEW MEXICO -NM	SOUTH DAKOTA -SD	
ARIZONA -AZ	IDAHO -ID	MICHIGAN -MI	NEW YORK -NY	TENNESSEE -TN	AMERICAN SAMOA -AS
ARKANSAS -AR	ILLINOIS -IL	MINNESOTA -MN	NORTH CAROLINA -NC	TEXAS -TX	CANAL ZONE -CZ
CALIFORNIA -CA	INDIANA -IN	MISSISSIPPI -MS	NORTH DAKOTA -ND	UTAH -UT	GUAM -GU
COLORADO -CO	IOWA -IA	MISSOURI -MO	OHIO -OH	VERMONT -VT	PUERTO RICO -PR
CONNECTICUT -CT	KANSAS -KS	MONTANA -MT	OKLAHOMA -OK	VIRGINIA -VA	VIRGIN ISLANDS -VI
DELAWARE -DE	KENTUCKY -KY	NEBRASKA -NB	OREGON -OR	WASHINGTON -WA	
WASHINGTON DC -DC	LOUISIANA -LA	NEVADA -N	PENNSYLVANIA -PA	WEST VIRGINIA -WV	CANADA
FLORIDA -FL	MAINE -ME	NEW HAMPSHIRE -NH	RHODE ISLAND -RI	WISCONSIN -WI	

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

SOURCE MATERIAL CEILING			<input type="checkbox"/> GRAMS	SNM CEILING			<input type="checkbox"/> GRAMS	<input type="checkbox"/> "X" HERE IF FOR POWER REACTOR	
			<input type="checkbox"/> KILOGRAMS				<input type="checkbox"/> KILOGRAMS		
MAT	AMOUNT	UNIT	CONFIG	ENRICH	MAT	AMOUNT	UNIT	CONFIG	ENRICH
U5		<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS				<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS	
U3		<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS				<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS	
PU		<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS				<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS	
UR		<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS				<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS	
TH		<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS				<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS	
		<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS				<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS	
		<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS				<input type="checkbox"/> G <input type="checkbox"/> Kg	<input type="checkbox"/> S <input type="checkbox"/> UNS	
H3		<input type="checkbox"/> CURIES <input type="checkbox"/> MILLICURIES	<input type="checkbox"/> MICROCURIES	RIS CODES					

U5=U235, U3=U233, PU=PLUTONIUM, UR=URANIUM, TH=THORIUM, H3=TRITIUM, G=GRAMS,
Kg=KILOGRAMS, S=SEALED, UNS=UNSEALED

U.S. ATOMIC ENERGY COMMISSION
MATERIALS DATA INPUT S/SNM

3 - D.P. PENDING

CARD 1

<input type="checkbox"/> COL 1-1	<input type="checkbox"/> COL 1-3	<input type="checkbox"/> COL 1-5	COL 2-9	10	COL 11-15
<input type="checkbox"/> COL 1-2	<input checked="" type="checkbox"/> COL 1-4	<input type="checkbox"/> COL 1-6	042-0302	1	03825

DUPLICATE COLUMNS 1-9/PUNCH COL 10/DUPLICATE COLUMNS 11-15

CARD COL	16-44	45-73
2 2		
3 3	16-44	45-73
4 4	16-44	45-73
5 5	16-80	
	Kerr McGee Nuclear Corporation	
6 6	16-80	
7 7	16-45	46-64
		65-66
		67-71
8	COL 16 <input type="checkbox"/> 1	17-22
	PUNCH FIELD <input type="checkbox"/> 2	23-27
	NO. CHECKED <input checked="" type="checkbox"/> 3	28-32
	05/15/78	12636
8		
7	33-45	
	SUB-1010	07-12-79

Docket No. 40-8027

~~Indefinite~~
"LICENSE AMENDMENTS"

#13356

William O. Miller, License Fee Management Branch, ADM

MATERIALS LICENSE AMENDMENT CLASSIFICATION

Applicant: Ken W. Lee

License No: 5027 1010

Fee Category: 2C

Application Dated: 6/27/79

Received: 7/6/79

Applicant's Classification: minor safety

The above application for amendment has been reviewed by NMSS in accordance with §170.31 of Part 170, and is classified as follows:

1. Safety and Environmental Amendments to Licenses in Fee Categories 1A through 1H, 2A, 2B, 2C, and 4A
 - (a) ☐ Major safety and environmental
 - (b) ☒ Minor safety and environmental
 - (c) ☐ Safety and environmental (Categories 1D through 1G only)
 - (d) ☐ Administrative
2. Justification for reclassification: _____

3. The application was filed (a) ☐ pursuant to written NRC request and the amendment is being issued for the convenience of the Commission, or (b) ☐ Other (State reason): _____

Signature W. C. Crawl

Division of Fuel Cycle & Material
Safety

Date 7/10/79



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

Crow

JUL 27 1979

L. C. Rouse, Chief
Fuel Processing & Fabrication
Branch
Division of Fuel Cycle & Material
Safety

NOTIFICATION OF INTENDED ACTION BY DIVISION OF SAFEGUARDS

APPLICANT: Kerr-McGee Nuclear Corp. LICENSE NO.: SUB-1010

DOCKET NO.: 40-8027

ADDRESS: Oklahoma City, OK

DATE OF APPLICATION: 6/27/79

MAIL CONTROL NO.: 13358

We have examined the above application and have determined:

- ☒ A. No action by this Division is required. We have no objection to your Branch taking appropriate action independently.
- ☐ B. Licensing action by this Division is necessary. We will contact you to coordinate simultaneous licensing action with your Branch.
- ☐ C. Special or unusual aspects should be resolved. We will contact you to discuss.
- ☐ D. Please inform the licensee of the requirements stated in paragraph 70.51(b), (c), and (d) regarding records, material control & accounting procedures, and physical inventories.

for J. G. Partlow
J. G. Partlow
Division of Safeguards



**KERR-McGEE**

KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

REGULATORY OPERATIONS
FILE COPY
RECEIVED

June 27, 1979

1979 JUL 3 AM 9 05

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. W. T. Crow
 Fuel Processing & Fabrication Branch
 Division of Fuel Cycle & Material Safety
 U. S. Nuclear Regulatory Commission
 Washington, D.C. 20555

U.S. NUCLEAR REG.
 COMMISSION
 NMSS MAIL SECTION

Re: Docket No. 40-8027

Dear Mr. Crow:

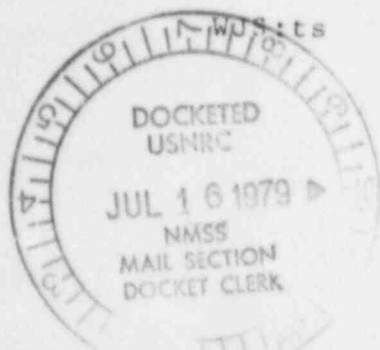
This letter contains our application for additional waste liquid ponding capacity for our Sequoyah Facility raffinate disposal program. In addition, for your information, we are including an up-dated plot plan (drawing 110-C-1004 Rev. 9) of the Sequoyah Facility area enclosed by security fencing. Facility modifications either recently completed or contemplated are shown in colored ink on the drawing. We hope this information will be useful to you.

The additional ponding capacity is needed urgently for two reasons. First, original planning would have used a considerably larger volume of the treated raffinate solution as fertilizer, beginning at an earlier date than actually occurred. Secondly, local spring rains have been extraordinarily heavy during 1979. These circumstances have caused our existing ponding capacity to become inadequate for our on-going raffinate elimination program.

Enclosed please find our check for \$3,500 to cover this amendment application fee. If you have questions regarding this application please call.

Very truly yours,

W. J. Shelley
 W. J. Shelley, Director
 Regulation & Control



Applicant.....
Check No. 51533.....
Amount/Fee Category 3100-26.....
Type of Fee... minor safety.....
Date Check Rec'd... 7/9/79.....
Received By... [signature].....

13356

7909070712 July 29-1
 6pp

Kerr-McGee Nuclear Corporation
Amendment Application
Docket No. 40-8027
June 27, 1979

1. Introduction

The Kerr-McGee Nuclear Corporation (KMNC) made an amendment application to the Commission in a letter dated June 2, 1978. The amendment would permit KMNC to construct and use its liquid storage pond No. 3. The Commission authorized this activity in its letter of July 7, 1978, containing Amendment No. 2 to license SUB-1010.

Construction of this two basin pond was completed near the 1st of the year. It has been in service since January 19, 1979, and has performed very satisfactorily ever since.

KMNC now desires to construct a third basin immediately east of pond No. 3. This new basin is designated as pond No. 4. Drawing No. 110-C-1008 Rev. 2 (enclosed) depicts ponds No's. 3 & 4. Also enclosed is an updated drawing (No. 110-C-1011 Rev. I) which shows the construction details for pond No. 4 and the basins of pond No. 3, making each basin identical. The new basin (Pond No. 4) will enable the continuance of spare ponding capacity for emergency use in the event another pond or basin should lose its capability to retain its contents safely.

2. Ponds Nos. 3 & 4 Site Description

This site is owned by Kerr-McGee Nuclear Corporation. Its location does not occupy the channel of any permanent or intermittent watercourse and is protected against water runoff from surrounding drainage areas. A seven-foot chain link security fence surrounds the site to restrict access by animals and unauthorized individuals. The fenced area is sufficiently large to permit maintenance on the outer slopes of the embankments. Ponds Nos. 1 and 2 have not been frequented by waterfowl, to our knowledge, during the past years. The slightly ammoniacal odor of the treated raffinate discourages waterfowl from landing on these ponds. A protected wildlife refuge nearby attracts these birds, consequently they are not enticed to land on the ponds.

3. Hydrogeologic Setting of Ponds Nos. 3 & 4

At the site of the proposed pond, holes were drilled into the bedrock and cores were taken at the four corners of the pond to determine the site specific lithologic conditions. The subsurface investigation revealed a hydrogeologic setting very similar to that found in the extensively explored area around Pond #2 as reported in January, 1977.

Groundwater conditions underlying the proposed pond are expected to be similar to those beneath Pond #2. The water table should occur at less than 30 feet and be a subdued expression of the topography. Groundwater monitoring wells

No.s OW-1, OW-2, OW-3, and OW-4A are shown in drawing No. 110-C-1008 Rev. 2. These monitoring wells serve to detect pond leakage in the unlikely event it should occur.

4. Construction of Pond No. 4

As can be seen from drawing No. 100-C-1008 Rev. 2 Pond Nos. 3 plus 4 consists of three separate retention basins, each with a planned liquid capacity of 12.75×10^6 gallons while maintaining a safe embankment freeboard of 3 ft. above the liquid level. The basin embankments will be stabilized to prevent erosion. Grasses will be grown on the outer banks. There will be no dry radioactive material produced by evaporation of liquid from the basins. Dry fertilizer which might form around the sides of a pond because of evaporation, will be dissolved by the next rain and return into the basin.

The interior of each basin will be lined with an essentially impervious Hypalon lining designed to prevent seepage. See Table No. 1 for data on the liner. The number of construction joints of the liner will be minimized. A layer of sand is immediately below the liner and above the clayey subbase soil. The pond bottom is sloped approximately 2° . The slope and the sand serves two purposes; (1) venting air which may otherwise form a bubble under the liner and (2) in the event of leakage, it provides a porous path for the liquid leakage to follow to the seepage collection piping beneath the liner. (See drawing No. 110-C-1011 Rev. No. 1)

The seepage assessment system includes six perforated pipelines extending East to West across each basin beneath its liner. The mid point of each pipe is slightly higher than the rest of the nearly horizontal section of the pipe. This causes a slight slope which directs any seepage collected to the piping elbows located at the inside bottom of the basin where the embankment begins. The basin bottom is sloped 2° from the North to the South. Leakage detected at any one sampling point is located within an identifiable section, $1/12$ (8.33%) of the basin area. The sample is taken by snaking a semirigid hose down the 3" pipe to the bottom pipe elbows and pumping any liquid obtainable up through the hose to a sample bottle.

In addition to the pipeline collection system, there are four monitoring wells. These wells range from 32 ft. deep to 42 ft. deep. The wells will be built to prevent their contamination by surface waters.

5. Routine Monitoring Program

The perforated pipeline collection system under each pond basin has twelve sampling points, each representing 8.33% of the basin area. Sampling equipment will be operated routinely at each of the twelve sampling points using the frequency listed below. If leakage is detected the sampling frequency may be changed as described in Section 6.

SAMPLING FREQUENCY

- a) Daily for the first 5 days after beginning use of the basin, then
- b) Weekly for four weeks, then
- c) Monthly for three months, then
- d) Quarterly

It is anticipated that the pipeline system will usually be dry. The sampling record will be marked "dry" when no liquid is obtained from a proper attempt to withdraw liquid from a sampling point. In the event that liquid is collected, it will be analyzed for nitrate and gross alpha.

It is expected that the four monitoring wells will always have water in them. Samples will be taken before the pond is used. After the first use of a pond basin these wells will be sampled monthly for a period of three months, then quarterly. Sample analysis will be for gross alpha, beta nitrate, fluoride, uranium and radium.

6. Corrective Action in Case of Leakage

It is unlikely that the monitor wells would collect pond liquid without the pipeline system having previously gathered some of the seepage. In the event that pond liquid is found in one or more monitor wells, the contents of the pond basin in use will be transferred to the spare basin. The liner would then be inspected and repaired. The monitor wells would be pumped periodically to purge the local ground water of the seepage liquid, until well samples returned to near "background" conditions. Re-use of the pond basin will require the sampling frequencies given in Section 5.

If a liquid sample from the pipeline collection system shows an unusually high nitrate concentration, an estimate of the leak rate will be made. This may be done by attempting to pump the sampling point dry at timed intervals and measuring the volume removed. By knowing the liquid accumulation rate and its nitrate concentration, the severity of the leak can be determined. When the severity is considered low, a more frequent sampling may be done and the pipeline system periodically pumped dry, returning the seepage to the basin.

A more severe problem would be flooding of the pipeline system because of rapid leakage. Should flooding occur, the contents of the affected basin will be transferred to the spare basin and liner repairs made. Consideration will be given to drilling interceptor wells for the purpose of additional sampling and for pump purging the ground water. The sampling frequencies given in Section 5 will apply when the basin is re-used.

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TABLE NO. I

Specification No. P-32-0
Hypalon Pond Liner Data

I. Physical Properties

<u>Property</u>	<u>Test Method</u>	<u>Requirement</u>
Tensile Strength	ASTM-D-412	1,000 psi, Min.
Elongation at Break	ASTM D-412	250% Min.
Water Absorption	ASTM D-471(7 days @ 70°F)	5% (wt.) Max.
Cold Bend (1/8")	ASTM D-2136	-30°F, no cracks
Brittleness	ASTM D-746(B)	-45°F, no failure
Ozone Resistance	ASTM D-1149(A)	No cracks (7 x mag.)
Heat Aging -		
Tensile Strength	ASTM D-573	1,000 psi, Min.
Elong. at Break	& D-412 14 days @ 212°F	150% Min.
1-Ply Thickness	--	15 mil. (nominal)
Scrim Material	--	Polyester fiber
Liner Thickness	--	28 mil., Min.
Sheet Strength-wrap	ASTM D-751	80 lbs., Min.
-fill	Grap Method	80 lbs., Min.
Tear - wrap	ASTM D-751	20 lbs., Min.
- fill	Tongue Method	20 lbs., Min.
Mullins Burst	ASTM D-751	90 psi, Min.
Puncture Resistance	FTMS-101-B Method 2031	100 psi, Min.
Pinholes	Spark Test or Light Source Scanner	No pinholes
Chemical Resistance	--	Highly resistant to aqueous solutions of nitric acid and other inorganic acids. Ex- cellent compatibility with ammonium nitrate* and other ammonical solutions.

*The Kerr-McGee Nuclear Corporation has a Hypalon-lined pond at its Cimarron facility near Crescent, Oklahoma. This pond has contained ammonium nitrate solutions and withstood weather conditions for a period of seven years without observable deterioration.

MATERIALS DATA INPUT S/SNM

4 - SOURCE AND SNM
REFERENCE COPY

A. TYPE OF ACTION AND IDENTIFICATION:

YES

1	<input type="checkbox"/> NEW LICENSE	<input type="checkbox"/> AMENDMENT TO RENEW LICENSE	<input type="checkbox"/> AMENDMENT TO TERMINATE	<input type="checkbox"/> VOID	DOCKET NUMBER	MAIL CONTROL NUMBER	CHANGE NAME/ ADDRESS
	<input type="checkbox"/> NEW LICENSE AND NEW LICENSEE	<input checked="" type="checkbox"/> OTHER AMENDMENT	<input type="checkbox"/> CLERICAL CHANGE NO AMENDMENT		040-08027	13356	<input type="checkbox"/>

B. INDICATIVE INFORMATION:

INDIVIDUAL LICENSEE	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 NAME (ALPHABETIC SEQUENCE)
	Kerr McGee Nuclear Corporation
	DEPARTMENT OR BUREAU

5	ADDRESS	BUILDING, STREET	CITY	STATE	ZIP CODE
		Kerr McGee Center	Oklahoma City	OK	73125

6	TYPE OF APPLICANT	<input type="checkbox"/> U.S. GOVERNMENT AGENCY	DATE REQUEST RECEIVED	INSTITUTION CODE	PENDING PROG. CODE	ACTUAL PROG. CODE
		<input type="checkbox"/> INDIVIDUAL LICENSEE	07/16/79	12636		
		<input type="checkbox"/> ORGANIZATIONAL LICENSEE				

SECONDARY PROGRAM CODES AS REQUIRED:

#1	#2	#3	#4	#5
----	----	----	----	----

7	LICENSE NUMBER	DATE LICENSE ISSUED OR ACTION COMPLETED	EXPIRATION DATE
	508-1010		

APPLICANT'S COMMUNICATION DATED:	CLASSIFICATION	ASSIGNED TO:	RESULTING AMD. NO.
6/27/79	un		

ENCLOSURES:

drawings 110-c-1011 rev-1
110-c-1008 rev-2
110-c-1004 rev-9

UNCLASSIFIED DESCRIPTION:

amendment request

DISTRIBUTION:

Reg File cy

FCUR

Partlow

LEE (2)

PDR

LPDR

13356

DLC

OTHER REFERRALS

NAME	DATE	NAME	DATE

OVERSIZE DOCUMENT PAGE PULLED

SEE APERTURE CARDS

NUMBER OF PAGES: 3

ACCESSION NUMBER(S):

8512170571

570

569

APERTURE CARD/HARD COPY AVAILABLE FROM RECORD SERVICES BRANCH, TIDC
FTS 492-8989

FROM
Kerr-McBee Nuclear Corporation

DATE OF DOCUMENT
06-26-79

DATE RECEIVED
07-03-79

NO
13362

LTR
X

MEMO

REPORT

OTHER

TO:
WTCrow

ORIG
1

CC

OTHER

ACTION NECESSARY ☐
NO ACTION NECESSARY ☐

CONCURRENCE ☐
COMMENT ☐

DATE ANSWERED
BY

CLASSIF
U

POST OFFICE

REG NO

FILE CODE
40-8027

REFERRED TO

DATE

RECEIVED BY

DATE

DESCRIPTION (Must Be Unclassified)

attached is a copy of a letter to
the US Environmental Protection Agency
requesting Permit modification of
TSS requirements for NPDES permit
ENCLOSURES

Reg File Cy
FCUF (4)
I&E (2)
PDR
LPDR

7/9

1 cy rec'd

13362 ced

REMARKS

RETURN TO CENTRAL MAIL STATION

U. S. NUCLEAR REGULATORY COMMISSION

MAIL CONTROL FORM

FORM NRC-3265
(6-76)



KERR-MCGEE RECEIVED **NUCLEAR CORPORATION**

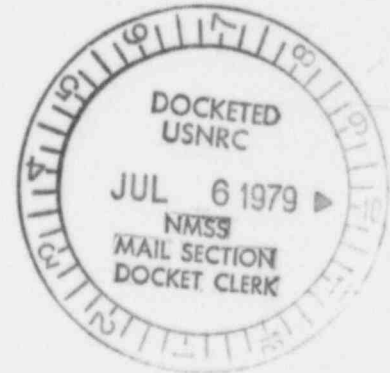
KERR-MCGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

June 26, 1979 AM 9 25

U.S. NUCLEAR REG
COMMISSION
NMSS MAIL SECTION

Mr. W. T. Crow - Section Leader
Uranium Fuel Fabrication Section
Division of Fuel Cycle and Material Safety
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

RE: Docket #40-8027
Sub-1010 - Amendment No. 4



Dear Mr. Crow:

Attached is a copy of a letter to the U.S. Environmental Protection Agency requesting Permit modification of TSS requirements for NPDES permit No. OK0000191, 002 outfall from the 160-acre raffinate test plot. The basis for this request is also outlined in the letter.

If you require any additional information, please contact me.

Very truly yours,

W. J. Shelley
W. J. Shelley, Director
Regulation & Control

WJS/jt

Attachment

cc: NRC Inspection & Enforcement Division
Region IV Office
611 Ryan Plaza, Suite 1000
Arlington, Texas 76001

Office of Nuclear Material
Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

FEE EXEMPT
info only

13362

~~7908090638~~ 5pp.



KERR-MCGEE

KERR-MCGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

June 25, 1979

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Adlene Harrison
Regional Administrator
U.S. Environmental Protection Agency
Region VI
First International Bank Building
1201 Elm Street
Dallas, Texas 75270

Subject: Request for Permit Modification NPDES Permit No.
OK0000191, 002 Outfall

Dear Ms. Harrison:

Please refer to our letters dated 3-26-79, 5-09-79, 6-01-79, 6-06-79, and 6-12-79 regarding noncompliance of total suspended solids permit conditions for our 002 outfall. As stated in our letter of June 1, 1979, runoff from the 160-acre test plot following heavy rainfall is typical of local agricultural non-point source discharges. Suspended solids levels in these type discharges are not consistent with effluent guidelines normally assigned to discrete industrial point source discharges (i.e. 20 mg/l daily average and 30 mg/l daily maximum).

Table I (attached) lists each day of TSS noncompliance in terms of total kilograms discharged to the local drainage. It should be noted that the TSS limits for our 001 outfall, which discharges to the same receiving waters as 002, are 340 kg/day daily average and 680 kg/day daily maximum. A previous 12-month daily average (April '78 - May '79) for the 001 discharge was 31.3 kg/day TSS. Thus, in essentially all cases of noncompliance for the 002 outfall, the combined total of the suspended solids for both outfalls did not exceed the allowable daily average limit assigned to 001 only, much less the daily maximum. Additionally, a recent sample taken of the receiving water upstream from the discharge point of both outfalls following a period of moderate rainfall showed an instream TSS level of 90 mg/l.

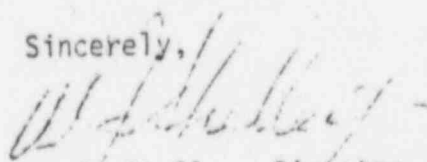
It should be noted that the suspended solids contained in the 002 outfall derive from soil and silt and are not an industrial pollutant related to our process. The raffinate which is distributed over the 160-acre test plot is a by-product of our facility which has been treated to reduce its radioactivity and is applied to the soil as part of a waste disposal program licensed by the USNRC. EPA's cognizance of this program is evidenced by a letter from Mr. H. D. May of EPA to Mr. Ray Cooperstein of NRC dated 10-12-76. Also, please refer to the attachments included in submittal of Short Form C dated 7-19-77 which describes in detail our raffinate disposal program as approved by the NRC.

Ms. Adlene Harrison
June 25, 1979
Page Two

In view of the above discussion, Kerr-McGee Nuclear hereby proposes that the existing NPDES permit be modified such that monitoring be required for only those potential pollutants which we are applying to the land in the form of treated raffinate; that is ammonia, nitrate, and radium (soluble and total). This monitoring would then coincide with that required by the Nuclear Regulatory Commission as part of our overall raffinate disposal program. These four parameters are currently part of the 002 outfall monitoring program and we have no quarrel with the existing permit concentration levels for these parameters.

Your prompt consideration of this request would certainly be appreciated. Should you desire additional or more detailed information, please let me know.

Sincerely,



W. J. Shelley, Director
Regulation & Control

WJS:ts

Attachment

TABLE I

TSS Noncompliance - 002 Outfall

Date	Flow, 10 ⁶ gals.	TSS, mg/l	TSS, Kg	(1) 001 & 002 Discharges Combined TSS, Kg
3-20-79	0.029	64.	7.0	38.3
3-21-79	0.029	133.	14.6	45.9
3-22-79	0.036	85.	11.6	42.9
3-23-79	0.036	46.	6.3	37.6
3-24-79	0.010	126.	4.8	36.1
5-03-79	0.132	93.	46.5	77.8
5-04-79	0.087	78.	25.7	57.0
5-05-79	0.015	46.	2.6	33.9
5-07-79	0.003	32.	0.4	31.7
5-28-79	0.087	143.	47.1	78.4
6-02-79	0.200	108.	81.8	113.1
6-03-79	0.065	51.	12.5	43.8
6-04-79	0.012	39.	1.8	33.1
6-07-79	0.595	124.	279.3	310.6
6-09-79	0.576	(2) 284.	619.2	650.5

(1) Includes a twelve month daily average of 31.3 kg/day for the 001 outfall.

(2) As daily samples immediately preceeding and following this sample show TSS levels <30 mg/l, sample contamination associated with mitigation measures (i.e. settling and decantation) is suspected.

FROM Kerr-McGee Nuclear Corporation		DATE OF DOCUMENT 06/12/79	DATE RECEIVED 06/14/79	NO 13174
		LTR X	MEMO	REPORT OTHER
TO WTCrow		ORIG 1	CC	OTHER
		ACTION NECESSARY <input type="checkbox"/>	CONCURRENCE <input type="checkbox"/>	DATE ANSWERED
		NO ACTION NECESSARY <input type="checkbox"/>	COMMENT <input type="checkbox"/>	BY
CLASSIF U	POST OFFICE REG. NO	FILE CODE 40-8027		
DESCRIPTION (Must Be Unclassified) Notice of Violation		REFERRED TO Reg File Cy FCPC (4) I&E (2) PDR LPDR	DATE 6/18	RECEIVED BY DATE
ENCLOSURES 1cy rec'd				
REMARKS				
			CED	13174

RETURN TO CENTRAL MAIL STATION

U. S. NUCLEAR REGULATORY COMMISSION

MAIL CONTROL FORM

FORM NRC-3265
(6-76)

**KERR-McGEE NUCLEAR CORPORATION**

KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

RECEIVED

June 12, 1979

979 JUN 14 PM 2 59

U.S. NUCLEAR REG.
COMMISSION
TSS MAIL SECTION

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

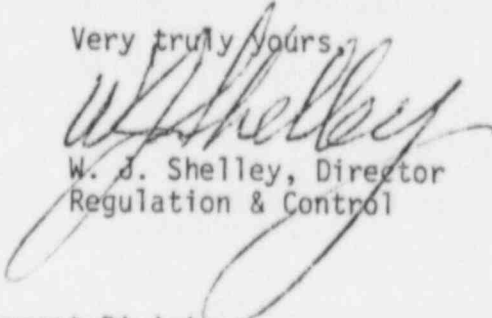
Mr. W. T. Crow, Section Leader
Uranium Fuel Fabrication Section
Division of Fuel Cycle and Material Safety
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Docket #40 - 8027
Sub-1010 Amendment No. 4

Dear Mr. Crow:

Pursuant to condition 2 outlined in our amendment authorizing test distribution of treated raffinate, notice is given of violation of TSS limits for the 160-acre NPDES permit (#002) outfall. The attached letter identifies the nature of the violation.

Very truly yours,



W. J. Shelley, Director
Regulation & Control

WJS:ts

cc: NRC Inspection & Enforcement Division
Region IV Office
Arlington, Texas

Office of Nuclear Material Safety & Safeguards
Washington, D.C.

FEE EXEMPT
ifo

7907310173
10pp

13174



KERR-MCGEE

KERR-MCGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

June 6, 1979

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Adelene Harrison
Regional Administrator
U. S. Environmental Protection Agency
Region VI
First International Bank Building
1201 Elm Street
Dallas, Texas 75270

Subject: Noncompliance under NPDES Permit
No. OK0000191, 002 Outfall

Dear Ms. Harrison:

Please refer to the subject permit and its attached requirements. Part 2, subparagraph A requires notification within five days of a noncompliant condition on any daily maximum effluent limitation specified. Accordingly, we notify you that 6-2-79, 6-3-79, and 6-4-79 the daily maximum effluent limitation of 30 mg/l TSS was exceeded for our 002 outfall. The specific values for each day are included as Attachment I. Rainfall immediately preceeding the period of noncompliance amounted to 2.0 inches.

Should you need additional or more detailed information please let us know.

Sincerely,

W. J. Shelley
W. J. Shelley, Director
Regulation & Control

WJS:ts

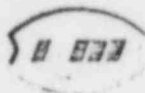
cc: Mr. Jim Barnett, OWRB



13174

ATTACHMENT I

<u>Date</u>	<u>Estimated Flow, gpm</u>	<u>Duration of Flow, hrs.</u>	<u>Total Flow, mgd</u>	<u>TSS, mg/l</u>
6-2-79	200. 60.	13.5 10.5	0.200	108.
6-3-79	60. 40.	6. 18.	0.065	51.
6-4-79	30. 5.	6. 5.	0.012	39.



KERR-McGEE

KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

June 12, 1979

CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Ms. Adelene Harrison
Regional Administrator
U. S. Environmental Protection Agency
Region VI
First International Bank Building
1201 Elm Street
Dallas, Texas 75270

Subject: Noncompliance under NPDES Permit
No. OK0000191, 002 Outfall

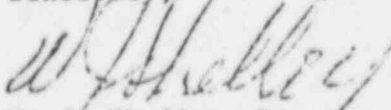
Dear Ms. Harrison:

Please refer to the subject permit and its attached requirements. Part 2, subparagraph A requires notification within five days of a noncompliant condition on any daily maximum effluent limitation specified. Accordingly, we notify you that on 6-07-79, and 6-09-79 the daily maximum effluent limitation of 30 mg/l TSS was exceeded for our 002 outfall. The specific values for each day are included as Attachment I. Rainfall immediately preceeding the period of noncompliance amounted to 1.0 inches; however, the ground was still saturated from the rainfall which fell on 6-02-79.

As this is now the fifth set of noncompliance periods within the last 90 days involving a total of 15 individual days of TSS daily maximum noncompliance, Kerr-McGee Nuclear is currently assembling data to be submitted to EPA in conjunction with a proposal for permit modification. This proposal will be forthcoming.

Should you need additional or more detailed information, please let us know.

Sincerely,


W. J. Shelley, Director
Regulation & Control

WJS:elb

cc: Jim Barnett, OWRB
C. Grosclaude
D. Swaney
J. W. Craig
Burnell Brown
JMC
ALD
ml

13174

ATTACHMENT I

<u>Date</u>	<u>Estimated Flow, gpm</u>	<u>Duration of Flow, hrs.</u>	<u>Total Flow, mgd</u>	<u>TSS, mg/l</u>
6-07-79	1500.	6.	0.595	124.
	75.	8.		
	80.	4.		
6-09-79	400.	24.	0.576	284.

FROM Kerr-McGee Nuclear Corporation		DATE OF DOCUMENT 06/12/79		DATE RECEIVED 06/18/79		NO 13178	
		LTR X		MEMO		REPORT	
		ORIG 1		CC 1		OTHER	
TO WTCrow		ACTION NECESSARY <input type="checkbox"/>		CONCURRENCE <input type="checkbox"/>		DATE ANSWERED	
		NO ACTION NECESSARY <input type="checkbox"/>		COMMENT <input type="checkbox"/>		BY	
CLASSIF U	POST OFFICE REG NO	FILE CODE 40-8027					
DESCRIPTION (Must Be Unclassified)		REF. RRED TO		DATE		RECEIVED BY	
notice is hereby given of violation of TSS limits for the 160-acre NPDES permit (#002) outfall.		Reg File Cy		6/21			
		FCPF (4)					
		I&E (2)					
		PDR					
ENCLOSURES		LPDR					
2 cys rec'd							
REMARKS						CED 13178	

RETURN TO CENTRAL MAIL STATION

U. S. NUCLEAR REGULATORY COMMISSION

MAIL CONTROL FORM

FORM NRC-3260
(6-76)

Regulatory Docket File



KERR-MCGEE NUCLEAR CORPORATION

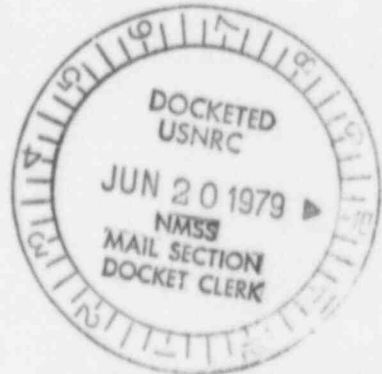
KERR-MCGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

June 12, 1979
1979 JUN 18 PM 1 56

U.S. NUCLEAR REG.
COMMISSION
MAIL SECTION

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. W. T. Crow, Section Leader
Uranium Fuel Fabrication Section
Division of Fuel Cycle and Material Safety
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555



Re: Docket #40 - 8027
Sub-1010 Amendment No. 4

Dear Mr. Crow:

Pursuant to condition 2 outlined in our amendment authorizing test distribution of treated raffinate, notice is given of violation of TSS limits for the 160-acre NPDES permit (#002) outfall. The attached letter identifies the nature of the violation.

Very truly yours,

W. J. Shelley
W. J. Shelley, Director
Regulation & Control

WJS:ts

cc: NRC Inspection & Enforcement Division
Region IV Office
Arlington, Texas

Office of Nuclear Material Safety & Safeguards
Washington, D.C.

FEE EXEMPT

info only

13178



KERR-McGEE

KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

June 6, 1979

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Adelene Harrison
Regional Administrator
U. S. Environmental Protection Agency
Region VI
First International Bank Building
1201 Elm Street
Dallas, Texas 75270

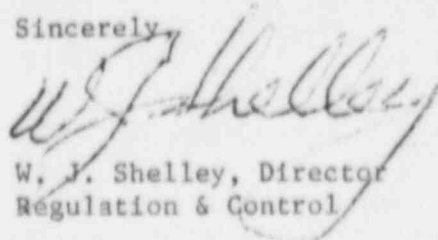
Subject: Noncompliance under NPDES Permit
No. OK0000191, 002 Outfall

Dear Ms. Harrison:

Please refer to the subject permit and its attached requirements. Part 2, subparagraph A requires notification within five days of a noncompliant condition on any daily maximum effluent limitation specified. Accordingly, we notify you that 6-2-79, 6-3-79, and 6-4-79 the daily maximum effluent limitation of 30 mg/l TSS was exceeded for our 002 outfall. The specific values for each day are included as Attachment I. Rainfall immediately preceeding the period of noncompliance amounted to 2.0 inches.

Should you need additional or more detailed information please let us know.

Sincerely,



W. J. Shelley, Director
Regulation & Control

WJS:ts

cc: Mr. Jim Barnett, OWRB



13178

ATTACHMENT I

<u>Date</u>	<u>Estimated Flow, gpm</u>	<u>Duration of Flow, hrs.</u>	<u>Total Flow, mgd</u>	<u>TSS, mg/l</u>
6-2-79	200. 60.	13.5 10.5	0.200	108.
6-3-79	60. 40.	6. 18.	0.065	51.
6-4-79	30. 5.	6. 5.	0.012	39.

FROM Kerr-McGee Nuclear Corp		DATE OF DOCUMENT 8/6/79 <i>06/06/79</i>		DATE RECEIVED 7/11/79		NO 13468	
		LTR X		MEMO		REPORT	
		ORIG 1		CC 1		OTHER	
TO WTT Crow		ACTION NECESSARY <input type="checkbox"/>		CONCURRENCE <input type="checkbox"/>		DATE ANSWERED	
		NO ACTION NECESSARY <input type="checkbox"/>		COMMENT <input type="checkbox"/>		BY	
CLASSIF un		POST OFFICE		FILE CODE 40-8027			
REG NO.							
DESCRIPTION (Must Be Unclassified)		REFERRED TO		DATE		RECEIVED BY	
notice of violation for the 160 acre NPDES permit (#002) outfall. attached ltr identifies violation		Reg File cy		7/20			
		FCUR (4)					
		Partlow					
		I&E (2)					
		PDR					
		LPDR					
ENCLOSURES							
REMARKS							
						13468 DLC	

RETURN TO CENTRAL MAIL STATION

U. S. NUCLEAR REGULATORY COMMISSION

MAIL CONTROL FORM

FORM NRC-9265
(6-76)

40-8027



KERR-MCGEE

KERR-MCGEE CENTER • OKLAHOMA CITY, OKLAHOMA

REGULATORY OPERATION
FILE COPY

June 6, 1979

1979 JUL 11 PM 3 09

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
U.S. NUCLEAR REG. COMMISSION
MAIL SECTION

Mr. W.T. Crow, Section Leader
Uranium Fuel Fabrication Section
Division of Fuel Cycle and Material Safety
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Docket #40-8027
Sub-1010 Amendment No. 4

Dear Mr. Crow:

Pursuant to condition 2 outlined in our amendment authorizing test distribution of treated raffinate, notice is given of violation for the 160-acre NPDES permit (#002) outfall. The attached letter identifies the nature of the violation.

Very truly yours,

W.J. Shelley, Director
Regulation & Control

JWS:maw

cc: NRC Inspection & Enforcement Division
Region IV Office
Arlington, Texas

Office of Nuclear Material Safety & Safeguards
Washington, D.C.

EXEMPT

info only

13168

7408140502 3pp



KERR-MCGEE

KERR-MCGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

July 5, 1979

CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Ms. Adelene Harrison
Regional Administrator
U.S. Environmental Protection Agency
Region VI
First International Bank Building
1201 Elm Street
Dallas, Texas 75270

Subject: Noncompliance under NPDES Permit
No. OK0000191, 002 Outfall

Dear Ms. Harrison:

Please refer to the subject permit and its attached requirements. Part 2, subparagraph A requires notification within five days of a noncompliant condition on any daily maximum effluent limitation specified.

Accordingly, we notify you that a pH value of 9.2 was recorded for a grab sample taken at 1530 hours on 6/29/79. As an earlier grab sample taken at 0630 hours showed a pH value of 7.1, this unexplained pH increase is currently being investigated.

Should you require additional information, please let us know.

Sincerely,


W.J. Shelley, Director

WJS:maw

cc: Jim Barnett, OWRB
C. Grosclaude
D. Swaney
J.W. Craig
Burnell Brown
JMC
ALD
ml

13468

Kerr-McGee Nuclear Corp.		DATE OF DOCUMENT 6/5/79	DATE RECEIVED 6/11/79	NO 13113
		LTR X	MEMO	OTHER
TO MR. Crow	ORIG 1	CC	OTHER	
	ACTION NECESSARY <input type="checkbox"/>	CONCURRENCE <input type="checkbox"/>	DATE ANSWERED	
	NO ACTION NECESSARY <input type="checkbox"/>	COMMENT <input type="checkbox"/>	BY	
CLASSIF un	POST OFFICE REG NO	FILE CODE 40-8027		
DESCRIPTION (Must Be Unclassified) violation of TSS limits. ltr identifies the nature of the viola- tion.	REFERRED TO	DATE	RECEIVED BY	DATE
	Reg File cy	6/12		
	FCPF (4)			
	I&E (2)			
	PDR			
ENCLOSURES	LPDR			
REMARKS			13113	DLC



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KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

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June 5, 1979 11
1979 JUN 11 AM 11 11

CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

U.S. NUCLEAR REG.
COMMISSION
NMSS MAIL SECTION

REGULATORY OPERATIONS
FILE COPY

Mr. W. T. Crow - Section Leader
Uranium Fuel Fabrication Section
Division of Fuel Cycle and Material Safety
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Docket #40-8027
Sub-1010-Amendment No. 4

Dear Mr. Crow:

Pursuant to Condition 2 outlined in our amendment authorizing test distribution of treated raffinate, notice is hereby given of violation of TSS (Total Suspended Solid) limits for the 160-acre NPDES permit (#002 outfall). The attached letter identifies the nature of the violation and requests guidance from EPA concerning possible solutions to the recurring suspended solids noncompliance.

If you have any questions, please contact me.

Very truly yours,

W. J. Shelley, Director
Regulation & Control
Kerr-McGee Nuclear Corporation

WJS:elb

cc: NRC Inspection and Enforcement
Division - Region IV Office -
Arlington, Texas

Office of Nuclear Material Safety
and Safeguards - Washington, D.C.

Attachment

FEE EXEMPT
info only

~~7908010071~~
4pp.

13113



KERR-MCGEE

KERR-MCGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

June 1, 1979

CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Ms. Adelene Harrison
Regional Administrator
U. S. Environmental Protection Agency
Region VI
First International Bank Building
1201 Elm Street
Dallas, Texas 75270

Subject: Noncompliance under NPDES Permit
No. OK0000191, 002 Outfall

Dear Ms. Harrison:

Please refer to the subject permit and its attached requirements. Part 2, subparagraph A requires notification within five days of a noncompliant condition on any daily maximum effluent limitation specified. Accordingly, we notify you that on 5-28-79 the daily maximum effluent limitation of 30 mg/l TSS was exceeded for our 002 outfall. A value of 143 mg/l TSS was recorded for a total flow of 0.087 million gallons.

As has been the case on the two previous occasions of noncompliance for this outfall, the event was preceded by heavy rainfall. A total of 4.1 inches of rain fell in a period of a few hours on the day of noncompliance. The pond area behind the retention dam had been completely drained as a preventive measure subsequent to our last noncompliance event of 5-07-79. However, even this action is ineffective in coping with excessive rainfall that occurs in a very short period of time.

The retention dam and resultant NPDES permit were initiated as a requirement of the Nuclear Regulatory Commission to monitor surface runoff from a 160-acre test plot upon which an ammonium nitrate by-product of our facility is being applied. The parameters of concern to the NRC were ammonia, nitrate and Ra-226 which are all included in our NPDES permit. The retention dam has created, in effect, a restricted discharge of a non-point source. As such, heavy rainfall and the resultant runoff from the drainage area contain suspended solids levels characteristic of agricultural non-point sources. These levels consistently exceed those of the effluent guidelines normally assigned to discreet industrial point sources.

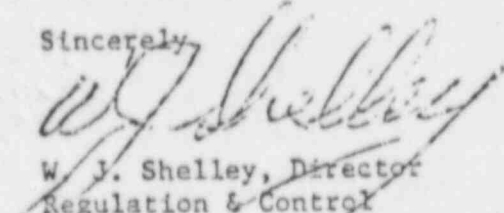
13113

Ms. Adelene Harrison
June 1, 1979
Page Two

Kerr-McGee Nuclear would appreciate some guidance from EPA concerning possible solutions to the recurring suspended solids noncompliance.

Your prompt attention to this problem would certainly be appreciated. Should you need additional information, please let me know.

Sincerely,


W. J. Shelley, Director
Regulation & Control
Kerr-McGee Nuclear Corporation

WJS:elb



13113

Regulatory

FROM Kerr-McCee Nuclear Corp		DATE OF DOCUMENT 06-02-78		DATE RECEIVED 06-07-78		NO 09563			
		LTR X		MEMO		REPORT		OTHER	
TO WTCrow		ORIG 1		CC		OTHER			
		ACTION NECESSARY <input type="checkbox"/>		CONCURRENCE <input type="checkbox"/>		DATE ANSWERED			
		NO ACTION NECESSARY <input type="checkbox"/>		COMMENT <input type="checkbox"/>		BY			
CLASSIF U		POST OFFICE U		FILE CODE 40-8027					
REG NO				REFERRED TO Docket File Cy		DATE 6/13		RECEIVED BY 09563 ced	
DESCRIPTION (Must Be Unclassified)				LCrouse (4)					
				JMartin					
				I&E (2)					
ENCLOSURES				PDR					
				LPDR					
REMARKS									