

Docket 40-8768

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KERR-McGEE NUCLEAR CORPORATION

KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

May 1, 1981



Mr. John Linehan
Nuclear Regulatory Commission
Mail Stop 483 SS
7915 Eastern Ave.
Silver Springs, MD 20910

NRC Docket No. 40-8768
Kerr-McGee Q Sand In Situ Project

Dear Mr. Linehan:

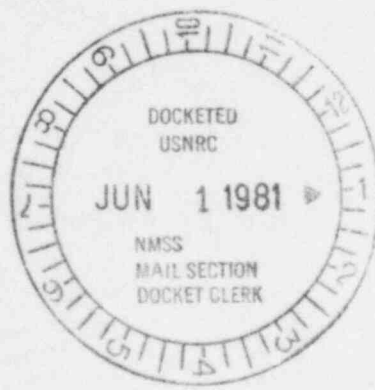
Attached per your request are ten(10) copies of NPDES permit No. WY-0022411 for the referenced application.

Sincerely,

W.J. Shelley, Vice President
Nuclear Licensing and Regulation
Environment and Health Management

WJS:kb

encls. 10



FEE EXEMPT

info only

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Add'l info

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File: NPDES Permit

Permit No.: Wy-0022411

WYO. URAN UM OPRS.

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended (33 U.S.C. 466 et. seq.,) (hereinafter referred to as "the Act"), and the Wyoming Environmental Quality Act (W.S. 35-11-101 through 1104, specifically 301(a)(i); Laws 1973, ch. 250, Section 1),

the Kerr-McGee Nuclear Corporation

is authorized to discharge from a facility located at

the Bill Smith Mine, Section 36,
T36N, R74W, Converse County, Wyoming

to receiving waters named

Sage Creek via unnamed drainage

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II and III hereof.

This permit shall become effective on date of issuance.

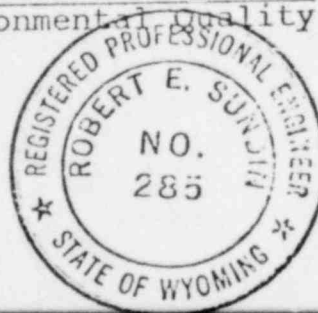
This permit and the authorization to discharge shall expire at midnight, January 31, 1986.

William L. Garland
Administrator - Water Quality



February 16, 1981
Date

Robert E. Sundin
Director - Department of Environmental Quality



February 16, 1981
Date

40-8768
with 5-1-81
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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning immediately and lasting through January 31, 1986 the permittee is authorized to discharge from outfall(s) serial number(s) 001.

Such discharges shall be limited by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations*</u>			
	<u>Concentration</u>			
	<u>kg/day</u> <u>Daily Avg</u>	<u>kg/day</u> <u>Daily Max</u>	<u>mc/l</u> <u>Daily Avg</u>	<u>mg/l</u> <u>Daily Max</u>
Flow - MGD	N/A	N/A	N/A	N/A
Total Suspended Solids	N/A	N/A	20	30
Total Zinc	N/A	N/A	.5	1.0
Dissolved Radium 226	N/A	N/A	3(pc/l)	10(pc/l)
Total Radium 226	N/A	N/A	10(pc/l)	30(pc/l)
Total Uranium (as U)**	N/A	N/A	2.0	4.0
COD	N/A	N/A	100	200

The oil and grease concentration shall not exceed 10 mg/l in any single grab sample and shall be monitored visually.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored quarterly with a grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

In addition to the above daily maximum concentration limitation, the analysis of any single properly preserved grab sample shall not exceed 150 percent of the daily maximum concentration (1.5 times the limitation) for the parameter(s) Total Suspended Solids, Total Zinc, Dissolved and Total Radium 226 and Total Uranium (as U).

*Any overflow, increase in volume of a discharge or discharge from a by-pass system caused by precipitation or snowmelt shall not be subject to limitations set forth in this section. This exemption shall be available only if facility is designed, constructed and maintained to contain or treat the volume of water which would fall on the areas covered by this permit during a 10 year-24 hour or larger precipitation event (2.5 inches) or snowmelt of equivalent volume. The operator shall have the burden of demonstrating to the appropriate authority that the prerequisites to this exemption have been met.

**See Part IC-9.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning immediately and lasting through January 31, 1986 the permittee is authorized to discharge from outfall(s) serial number(s) 001.

Such discharges shall be monitored by the permittee as specified below:

Monitoring Requirements

<u>Parameter</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Continuous	Daily Total
Total Suspended Solids	Weekly	Grab
Total Zinc	Quarterly	Grab
Dissolved Radium 226	Monthly	Composite
Total Radium 226	(Monitoring of this parameter not	required)
Total Uranium (as U)	Monthly	Composite
COD	(Monitoring of this parameter not	required)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): At the outfall from the final treatment unit and prior to admixture with diluent water or the receiving stream.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

3. During the period beginning immediately, and lasting through January 31, 1986, the permittee is authorized to discharge from outfall(s) serial number(s) 002 and 003.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>			
	kg/day		Concentration	
	Daily Avg	Daily Max	Daily Avg	Daily Max
Flow - MGD*	N/A	.12	N/A	N/A
Sodium	N/A	N/A	N/A	1,000
Bicarbonate	N/A	N/A	N/A	3,000
Chloride	N/A	N/A	N/A	500
Arsenic	N/A	N/A	N/A	N/A
Selenium	N/A	N/A	N/A	N/A

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored quarterly with a grab sample..

There shall be no discharge of floating solids or visible foam in other than trace amounts.

In addition to the above daily maximum concentration limitation, the analysis of any single properly preserved grab sample shall not exceed 150 percent of the daily maximum concentration (1.5 times the limitation) for the parameter(s) sodium, bicarbonate and chloride.

Monitoring Requirements

<u>Parameter</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow*	Continuous	Daily Total
Sodium	Monthly	Grab
Bicarbonate	Monthly	Grab
Chloride	Monthly	Grab
Arsenic	Quarterly	Grab
Selenium	Quarterly	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): See part IC8.

* For discharge point 002 flow volume may be measured prior to the point of injection.

B. RUNOFF FROM DISTURBED AREAS

Effective immediately and lasting through December 31, 1985 the permittee shall control all runoff from disturbed areas to insure there is no violation of Wyoming's surface water quality standards.

Disturbed areas are defined as the areas from which overburden has been removed or on which it has been deposited, ore stockpile areas, tailings areas and all other nonpublic areas or facilities caused to be disturbed by the permittee's operations. This does not apply to reclaimed and revegetated areas.

If runoff from disturbed areas is controlled through the use of settling pond(s) or sedimentation control structure(s), the following provisions apply:

1. If a settling pond or sedimentation control structure is not sized to completely contain the runoff resulting from precipitation, an equivalent snow melt or combination of precipitation and resulting snow melt equal to the ten year/twenty-four hour precipitation event (2.5 inches), the outfall from such settling pond(s) must be identified as a point of discharge and must meet the provisions of Part IA of this permit, regardless of precipitation conditions. Such ponds must also be permitted through the Permit to Construct process described in Wyoming Water Quality Rules and Regulations, Chapter III.
2. If a settling pond or sedimentation control structure is sized to completely contain the runoff from the ten year/twenty-four hour precipitation event as described above, the outfall from such settling pond(s) or structure(s) need not be identified as a point of discharge. However, it must be permitted through the Permit to Construct process described in Wyoming Water Quality Rules and Regulations, Chapter III, and shall be operated as follows:
 - a. During and immediately following a precipitation or runoff event equal to or greater than the ten/year-four hour precipitation event as described above, runoff in excess of the design capacity of the pond may be discharged even if the effluent does not meet the quality requirements of Part IA of this permit.
 - b. If, as the result of any precipitation or runoff event, the volume of water held in the pond exceeds the permanent pool, that quantity shall be discharged as soon as its quality meets the provisions of Part IA of this permit.
 - c. The Total Suspended Solids, Total Iron, and pH of the discharges described in "b" above shall be monitored with single grab samples and shall be reported to the permit issuing authority as an addendum to the regular

reports described in Part IC2 of this permit.

- d. All runoff control facilities shall be operated in a manner to minimize, to the extent practicable, the discharge of suspended solids and sediment. If, after on-site inspection by the Wyoming Department of Environmental Quality and/or the U.S. Environmental Protection Agency, it is determined that a runoff control pond is not being so operated, such finding shall be considered to be a violation of this permit.

In addition, the permittee shall operate and maintain all sediment control facilities such that:

1. Sluicing of collected sediments does not occur;
2. Scouring or erosion of the bottom of outlet channels does not occur;
3. Where sedimentation pond(s) or sedimentation control structure(s) are used, they shall be designed and maintained to contain at least one year's worth of accumulated sediment storage as determined by acceptable empirical methods.

The official weather station identified with this permit shall be the Glenrock 5 ESE station operated by the official observer designated by the U.S. Department of Commerce. The permittee has the option of maintaining additional precipitation gages at his facility.

C. MONITORING AND REPORTING1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Reporting

Monitoring results obtained during the previous 3 month(s) shall be summarized for each month and reported on a Discharge Monitoring Report Form, postmarked no later than the 28th day of the month following the completed reporting period. The first report is due on April 28, 1981. Duplicate signed copies of these and all other reports required herein, shall be submitted to the Regional Administrator and the State at the following addresses:

U.S. Environmental Protection Agency
1360 Lincoln Street, Suite 900
Denver, Colorado 80295
Attention: Enforcement-Permits
Telephone: (303) 837-4901

Wyoming Department of Environmental Quality
Water Quality Division
401 West 19th Street
Cheyenne, Wyoming 82001
Telephone: (307) 777-7781

If no discharge occurs during the reporting period, "no discharge" shall be reported.

3. Definitions

- a. The "daily average" discharge means the total discharge by weight determined by the arithmetic mean (geometric mean in the case of the fecal coliform parameter) of a minimum of three (3) samples taken on three (3) separate days during a calendar month.
- b. The "daily maximum" discharge means the total discharge by weight as determined by the analysis of a properly preserved composite sample composed of a minimum of four (4) grab samples collected at equally spaced two (2) hour intervals and proportioned according to flow at the time of sampling.
- c. The "daily average concentration" means the average concentration determined by the arithmetic mean (geometric mean in the case of the fecal coliform parameter) of a minimum of three (3) samples taken on three separate days during a calendar month.
- d. The "daily maximum concentration" shall be determined by an analysis of a properly preserved composite sample composed of a minimum of four (4) grab samples collected at equally spaced two (2) hour intervals and proportioned according to flow at the time of sampling.

- e. "Net" value, if noted under Effluent Characteristics, is calculated on the basis of the net increase of the individual parameter over the quantity of that same parameter present in the intake water measured prior to any contamination or use in the process of this facility. Any contaminants contained in any intake water obtained from underground wells shall not be adjusted for as described above and, therefore, shall be considered as process input to the final effluent. Limitations in which "net" is not noted are calculated on the basis of gross measurements of each parameter in the discharge, irrespective of the quantity of those parameters in the intake waters.
- f. A "composite" sample, for monitoring requirements, is defined as a minimum of four (4) grab samples collected at equally spaced two (2) hour intervals and proportioned according to flow.

4. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304(g) of the Act, under which such procedures may be required.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date and time of sampling;
- b. The dates the analyses were performed;
- c. The person(s) who performed the analyses;
- d. The analytical techniques or methods used; and
- e. The results of all required analyses.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form. Such increased frequency shall also be indicated.

7. Records Retention

All records and information resulting from the monitoring

activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Regional Administrator or the State water pollution control agency.

8. Location of Discharge Points

001 - The Final outfall from the treatment system which treats the wastewater from the Bill Smith Mine, the Bill Smith Mine Leach project, and the Q Sand ISL Project.

002 - A location (to be determined by the permittee and reported to the permit issuing authority) at which a representative sample of the water being influenced by the Bill Smith Mine Leach Project may be collected prior to its admixture with waters not affected by the Bill Smith Mine Leach Project.

003 - The discharge from the Q Sand ISL Project located prior to the point of mixture with water from the Bill Smith Mine or Bill Smith Mine Leach project.

9. Analytical Technique for Uranium

The analytical technique for Total Uranium (as U) shall be the flourometric method as referenced in Methods for Determination of Radioactive Substances in Water and Fluvial Sediments, Techniques of Water - Resource Investigations of the U.S. Geological Survey, Book 5, Chapter A-5, pp. 83 - 92.

PART IIA. MANAGEMENT REQUIREMENTS1. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases or process modifications which will result in new, different or increased discharges of pollutants must be reported by submission of a new NPDES application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the permit issuing authority of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

2. Noncompliance Notification

If, for any reason, the permittee does not comply with or will be unable to comply with any maximum effluent limitation specified in this permit, the permittee shall provide the Regional Administrator and the State with the following information, in writing, within five (5) days of becoming aware of such condition:

- a. A description of the discharge and cause of noncompliance; and
- b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

3. Facilities Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to waters of the State resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypassing

Any diversion from or bypass of facilities necessary to maintain compliance with the terms and conditions of this permit is prohibited, except (i) where unavoidable to prevent loss of life or severe property damage, or (ii) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the effluent limitations and prohibitions of this permit. The permittee shall promptly notify the Regional Administrator and the State in writing of each such diversion or bypass.

If a partial or complete bypass is considered necessary, a request for such bypass shall be submitted to the State of Wyoming and to the Environmental Protection Agency at least sixty (60) days prior to the proposed bypass. If the proposed bypass is judged acceptable by the State of Wyoming and by the Environmental Protection Agency, the bypass will be allowed subject to limitations imposed by the State of Wyoming and the Environmental Protection Agency.

If, after review and consideration, the proposed bypass is determined to be unacceptable by the State of Wyoming and the Environmental Protection Agency, or if limitations imposed on an approved bypass are violated, such bypass shall be considered a violation of this permit; and the fact that application was made or that a partial bypass was approved shall not be a defense to any action brought thereunder.

6. Removed Substances

Solids, sludges, filter backwash or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State.

7. Power Failures

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

- a. In accordance with the Schedule of Compliance contained in Part I, provide an alternative power source sufficient to operate the wastewater control facilities;

or, if such alternative power source is not in existence and no date for its implementation appears in Part I,

- b. Take such precautions as are necessary to maintain and operate the facility under his control in a manner that will minimize upsets and insure stable operation until power is restored.

B. RESPONSIBILITIES1. Right of Entry

The permittee shall allow the head of the State water pollution control agency, the Regional Administrator and/or their authorized representatives, upon the presentation of credentials:

- a. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and
- b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any discharge of pollutants.

2. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharge(s) emanate, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Regional Administrator and the State water pollution control agency.

3. Availability of Reports

Except for data determined to be confidential under Section 308 of the Federal Act, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the State water pollution control agency and the Regional Administrator. As required by the Federal Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Act.

4. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, suspended or revoked in whole or in part during its term for cause including, but not limited to, the following:

- a. Violation of any terms or conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
- c. A change in any condition that requires either a tempo-

rary or permanent reduction or elimination of the authorized discharge.

d. If necessary to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2) and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

(1) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

(2) Controls any pollutant not limited in the permit.

5. Toxic Pollutants

Notwithstanding Part II, B-4 above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Federal Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee so notified.

6. Civil and Criminal Liability

Except as provided in permit conditions on "Bypassing" (Part II, A-5) and "Power Failures" (Part II, A-7), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

7. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under Section 311 of the Federal Act.

8. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

9. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any

infringement of Federal, State or local laws or regulations.

10. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provisions of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

PART IIIA. OTHER REQUIREMENTS1. Flow Measurement

At the request of the Director of the Wyoming Department of Environmental Quality, the permittee must be able to show proof of the accuracy of any flow measuring device used in obtaining data submitted in the monitoring report. The flow measuring device must indicate values within ten (10) percent of the actual flow.

2. 208(b) Plans

This permit may be modified, suspended or revoked to comply with the provisions of any 208(b) plan certified by the Governor of the State of Wyoming.