



KERR-MCGEE CORPORATION

KERR-MCGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

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PDR
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ENVIRONMENT AND HEALTH MANAGEMENT DIVISION

October 21, 1982



Mr. Bill Crow
U.S. Nuclear Regulatory Commission
7915 Eastern Avenue
Silver Spring, MD 20907

Dear Mr. Crow:

Enclosed is three copies of the Oklahoma State permit to operate the deep injection well at the Sequoyah site. You will note that 15 conditions are given with the permit for this operation.

We expect to be able to commence pumping in early November and request your prompt approval of the license amendment providing for permanent disposal of treated raffinate for deep well disposal requested on July 29, 1982.

Sincerely yours,

W. J. Shelley, Vice-President
Nuclear Licensing & Regulation

WJS/pd

Enclosure



FEE EXEMPT

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State Board of Health

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Commissioner

JOAN K. LEAVITT, M.D.

Oklahoma

State Department of Health

1000 Northeast 10th Street
Post Office Box 53551
Oklahoma City, Oklahoma 73152

October 19, 1982

Mr. W. J. Shelley, Vice-President
Nuclear Licensing and Regulations
Kerr-McGee Corporation
Kerr-McGee Center
P.O. Box 25861
Oklahoma City, Oklahoma 73125

Dear Mr. Shelley:

Enclosed is a permit to operate, monitor, and maintain an Other Industrial Waste Injection Well located 3094 feet from the South line and 1482 feet from the East line of Section 21, Township 12 North, Range 21 East, respectively, of Sequoyah County, Oklahoma.

This site shall be operated and maintained in accordance with the plans and specifications approved by this Department on October 19, 1982, and all standards and rules promulgated pursuant to the Solid Waste Management Act and Controlled Industrial Waste Disposal Act. This permit is issued subject to the provisions listed on the permit, and upon receipt of this permit, it should be made a part of your permanent records. This permit will expire on October 19, 1987.

We are returning one set of the approved plans and specifications, forwarding one set to the Sequoyah County Health Department, and retaining one set for our files.

Very truly yours,

Handwritten signature of H. A. Caves in cursive script.

H. A. Caves, Chief
Industrial & Solid Waste Service

HAC/sh
Enclosures

cc: Sequoyah County Health Department

STATE OF OKLAHOMA)
)
) ss.
)
County of Sequoyah)

Know all Men by These Presents, That the Oklahoma State Department of Health has issued Permit Number IW68006 to the Kerr-McGee Nuclear Facility for the purpose of operating, monitoring, and maintaining an Other Industrial Waste Injection Well at the site/facility located 3094 feet from the South line and 1482 feet from the East line of Section 21, Township 12 North, Range 21 East of Sequoyah County, Oklahoma, said permit being issued pursuant to 63 O.S. 1981, Section 2251 et seq., and to rules and regulations promulgated in accordance therewith.

In witness thereof, we have hereunto set our hands this Nineteenth day of October, 1982.

H.A. Caves
Chief
Industrial/Solid Waste Service

Mark S. Coleman
Deputy Commissioner for
Environmental Health Services

Joan K. Leavitt, M.D.
Commissioner of Health

The foregoing instrument was acknowledged before me this Nineteenth day of October, 1982, by Joan K. Leavitt, M.D., Commissioner of Health, Mark S. Coleman, and H. A. Caves.

Wanda Bunting
Notary Public

My Commission Expires 2/4/86

PERMIT

for an
"OTHER INDUSTRIAL WASTE" INJECTION WELL

PERMIT NUMBER IW68006

Kerr-McGee Nuclear
Facility

DATE October, 1982

EXPIRATION DATE: October, 1987

having complied with the requirements of the law is hereby granted permission to operate, monitor and maintain an Other Industrial Waste injection disposal well located 3094 feet from the South line and 1482 feet from the East line of Section 21, Township 12 North, Range 21 East of Sequoyah County, Oklahoma.

This site shall be subject to the following provisions:

1. The permittee shall operate and maintain the facility in accordance with the Oklahoma Controlled Industrial Waste Disposal Act, the Rules and Regulations for Industrial Waste Management, and the application for permit and addenda as approved by the Oklahoma State Department of Health.
2. Injection into the disposal well is strictly limited to that of the treated raffinate from the processing facility at Gore.
3. The concentrations and radioactivity levels of the waste constituents, in particular that of the total nitrogen and Radium, shall not exceed 60 gms/l and 10 pci/l respectively. The levels of the injected raffinate shall not exceed 20% of the level of activity naturally occurring in the receiving formation.
4. The injection of five million gallons (5×10^6) per year within sixty (60) days each year shall be permitted. The same injection rate will be maintained throughout the permit duration.

(Continued)

H. G. Caves

Chief, Industrial & Solid Waste Service

Mark S. Coleman

Deputy Commissioner for
Environmental Health Services

Jean K. Leavitt, MD

Commissioner of Health

5. The injection pressure shall not exceed 300 psi.
6. A monitoring well located about 300 feet North of the injection well shall be installed to monitor the groundwater quality and waste migration. This well is to be properly constructed and completed to a depth of 400 feet.
7. Existing monitoring well number six (#6) (5000 feet East of injection well) shall be considered as part of the monitoring network due to its location and depth.
8. Representative samples of the raffinates of the holding ponds shall be obtained and analyzed by permittee prior to injection from each pond.
9. Seismic monitoring instruments shall be used to give background and post injection pressures.
10. Continuous monitoring of the injection and annulus pressures shall be conducted throughout the injection period. Flow rates and temperatures shall also be recorded continuously and reported on charts.
11. Groundwater monitoring and sampling via both wells shall be carried out on a monthly basis.
12. Monitoring, injection and test results shall be reported to the Industrial Waste Division of Oklahoma State Department of Health on a monthly basis.
13. Background information of formation fluids from both monitoring wells and injection well shall be established before injection commences.
14. Any change in operations (injection rates, duration, injection pressures, etc.) shall require prior approval by the Department.
15. All monitoring, recording and safety instruments shall be properly installed, tested and housed.