



KERR-McGEE CORPORATION

KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

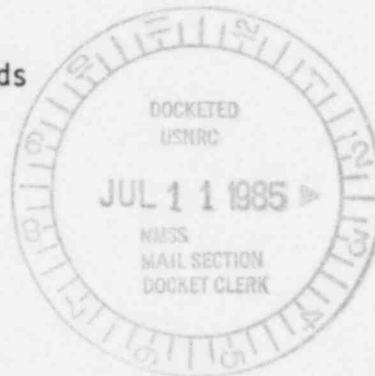
ENVIRONMENT AND HEALTH MANAGEMENT DIVISION

July 5, 1985

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. William T. Crow, Acting Chief
Uranium Fuel Licensing Branch
Division of Fuel Cycle & Material Safety
Office of Nuclear Material Safety & Safeguards
United States Nuclear Regulatory Commission
Washington, DC 20555

RE: License SUB-1010; Docket 40-8027
NRC Information Request; May 28, 1985
UF₆ to UF₄ Autoclave Features



Dear Mr. Crow:

In our June 21, 1985 responses to questions in NRC's May 28, 1985 letter concerning evaluation of environmental impacts of the depleted UF₆ to UF₄ plant and facility relicensing we explained that the depleted UF₆ feed cylinders would be contained in autoclaves during processing. See Question 8 in the "UF₆ to UF₄ Conversion Operation (Proposed Action)."

The following information is provided which describes the safety and control features of the autoclave should a leak develop. This response follows the points originally posed for the steam chests noted in the May 28, 1985 letter.

The feed autoclaves to be installed at the Sequoyah Fuels depleted UF₆ to UF₄ facility are designed after those in use by NLO at Fernald, Ohio and by Martin Marietta at Paducah, Kentucky. Their volumes are approximately 600 cubic feet, being 6 feet in diameter and 21 feet long. The 200 psig pressure rating is sufficient to contain the cylinder contents and pressure produced should a leak occur.

A UF₆ leak from the cylinder, connections, or lines in the autoclave will be detected by an increase in the electrical conductivity of the steam condensate from the autoclave. The conductivity will be monitored continuously during processing by redundant flow-type conductivity cells.

Should a leak be detected by the sensing equipment, the steam flow to the autoclave will be automatically turned off and all lines from the autoclave will be closed. This automatic control assures that no releases

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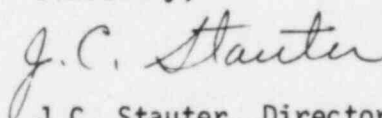
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will occur. The cylinder will cool down and the depleted UF_6 will solidify. All steam condensate water will be discharged to holding tanks, analyzed, treated for uranium removal if contaminated, and discharged through the plant effluent NPDES Outfall 001 combination stream.

Autoclave engineering drawings will be submitted to NRC when finalized. If you have additional questions, please contact me.

Sincerely,

A handwritten signature in cursive script, reading "J.C. Stauter".

J.C. Stauter, Director
Nuclear Licensing & Regulation

JCS/br