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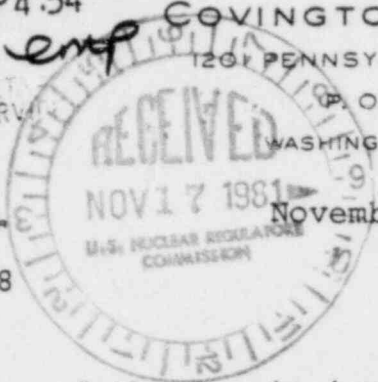
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PROPOSED RULE PR-60  
(46 FR 35280)

Secretary of the Commission  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

ATTN: Docketing and Service Branch

Re: Disposal of High-Level Radioactive Wastes  
in Geologic Repositories, 46 Fed. Reg. 35280  
(July 8, 1981)

Dear Sir:

These comments, submitted on behalf of Kerr-McGee Corporation and Kerr-McGee Nuclear Corporation (Kerr-McGee), are addressed to 10 C.F.R. Part 60, "Disposal of High Level Radioactive Waste in Geologic Repositories".

Proposed § 60.2 defines transuranic wastes (TRU) to mean "radioactive waste containing alpha emitting transuranic elements, with radioactive half-lives greater than five years, in excess of 10 nanocuries per gram." Kerr-McGee objects to this definition to the extent that it suggests that deep repository disposal is required for all TRU waste with this activity or above or to the extent that it classifies TRU waste in excess of 10 nCi/gm as "high level" waste. The definition, if so applied, appears unjustified, unsupported, and unduly stringent. 1/

Based upon Kerr-McGee's current decommissioning experience with a mixed oxide fuel plant, Kerr-McGee estimates that NRC's proposed TRU definition, if applied to require deep repository disposal, would increase the need for geologic storage volume to hold high level waste from similar operations by at least a third over that which would be required if the definition specified a level of 100 nCi/gm. Requiring deep repository disposal would unduly tax limited space in such repositories.

1/ Kerr-McGee also objects to the definition to the extent that it is intended to be a standard on the ground that NRC lacks authority to issue such standards. That authority was transferred to the Environmental Protection Agency (EPA) under Reorganization Plan No. 3 of 1970 (assuming arguendo the validity of the transfer of authority under that Plan).

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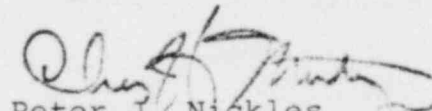
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The "10 nCi/gm" limit appears to be totally arbitrary. The AEC Manual indicates that it was established without scientific support and is simply "derived from the upper range of concentration of radium-226 in the earth . . . ." AEC Manual, Chapter 511 at p. 51 (Sept. 19, 1973). Indeed, the manual suggests that the 10 nCi/gm figure is subject to revision upon further study. Deep repository disposal, which will be very expensive (\$200 per cubic foot or more) obviously should not be required on so flimsy a foundation. TRU waste which is in excess of 100 nCi/gm may be satisfactorily disposed in near surface facilities as low-level waste, at only a fraction of that cost (10% or less). Requiring deep geologic disposal for ordinary waste from a plutonium fuel operation would place an unnecessary burden on such operations.

Kerr-McGee's view is supported by the epidemiological investigation being conducted by the Los Alamos National Laboratory. The investigation examines the impact of low level exposure from internal deposition of and external radiation from plutonium. As reported by a press release from the Los Alamos National Laboratory dated October 15, 1981, considerably lower mortality was observed in the population of Los Alamos workers exposed to plutonium than would be expected from the mortality rate of white males in the United States. Kerr-McGee's view is further supported by the Department of Energy which reportedly does not believe that deep repository disposal is required for TRU waste in excess of 10 nCi/gm.

Kerr-McGee accordingly requests the Commission to make clear (1) that deep repository disposal is not required for TRU waste in excess of 10 nCi/gm and (2) that TRU waste in excess of 10 nCi/gm need not be disposed of as "high level" waste.

Respectfully submitted,



Peter J. Nickles  
Charles H. Montange

Attorneys for Kerr-McGee  
Corporation and Kerr-McGee  
Nuclear Corporation