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March 11, 1994

ENVIRONMENT AND HEALTH MANAGEMENT DIVISION

EDWIN T. STILL, DVM
VICE PRESIDENT AND DIRECTOR

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

Secretary
U. S. Nuclear Regulatory Commission
Attn: Docketing and Service Branch
Washington, D.C. 20555

Re: 10 CFR Part 20; Draft Proposed Radiological Criteria for the
Decommissioning of Soils and Structures, (January 26, 1994).

Dear Mr. Secretary:

Kerr-McGee Corporation submits the comments below about the staff draft on radiological criteria for decommissioning of soils and structures. Kerr-McGee and its subsidiaries have operated facilities under Nuclear Regulatory Commission (NRC) license that will require decommissioning. The draft proposal is thus of direct interest to the company.

The proposed criteria are unworkable and unacceptable and must be revised substantially before formal publication for comment and consideration for approval and adoption. The proposed rule does not comport with scientific information available about radiation exposure risks, is not consistent with exposure limits and criteria endorsed or recommended by national and international expert bodies on radiation exposure risks and does not recognize the state of technology for assessing very low levels of residual radioactivity.

Rather, the proposal appears an attempt to accommodate the wide range of viewpoints asserted by diverse interest groups at the series of workshops and scoping meetings the staff conducted in 1993. The Commission acknowledges as much in the statement in the draft document that "the proposed rule (radiological criteria for decommissioning) also recognizes the public's interest in and potential for contributing to the decommissioning process". Regardless of the sincerity or intensity of public interest, criteria should reflect valid information and reasoned assessment.

We are concerned the proposal does not reflect a reasoned assessment of valid data. Our concerns cover several areas and specific provisions in the proposal, some of which are highlighted below.

The "goal" of return to background (i.e., no more than 3 millirem per year from residual radioactivity) has no technical basis. A goal is not a criterion and should not be premised as such. The 3 millirem is really indistinguishable from natural

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background variability. In reality, then, the goal is "zero" mrem, which is technically unachievable, immeasurable and meaningless. Yet, the goal sends a message, both explicit and implicit, that anything above "background" is dangerous.

That message is further enhanced by the next level of 15 mrem/yr, the level at which a license can be terminated if the licensee can demonstrate "that the residual radioactivity at the site has been reduced to as close to the goal as reasonably achievable". In effect, the message is that 15 mrem is not acceptable, but will be permitted if less can not be attained.

The greater than 15 mrem/yr cap is verified by the next criterion that suggests residual activity sufficient to result in a dose greater than 15 mrem/yr can be left, but only if restrictions are placed on the site to assure the actual dose remains below the 15 mrem/yr. Under any circumstance, the annual dose is not to exceed 100 mrem, even if the restrictions are no longer in place.

The range of doses -- zero, 3, zero to 3 to 15, 15, and 15 to 100 mrem/yr with restrictions -- are all different from the 100 mrem/yr limit established in 10 CFR 20 for a member of the public from an actively operating licensed facility. If 100 mrem is acceptable under one circumstance, 100 mrem should be acceptable under the other circumstance. For NRC to suggest otherwise undercuts the credibility and believability of the agency and emphasizes the lack of a technical basis for the proposed criteria. No basis exists to distinguish risk from radiation from an operating facility and a non-operating facility and the proposal does not suggest such a basis exists.

The instrumentation and measurement techniques available also may not allow detecting some radionuclides at the very low levels that will be required to demonstrate achieving the goal, or even the 15 mrem/yr limit. In the case of naturally occurring radionuclides, such as radium, thorium and uranium, the variation in background levels alone can result in a variation of 3 mrem in a year, which is a rate of only 0.3 microrem per hour. Further, for some radionuclides in soil, standards are not available for making the necessary measurements to demonstrate compliance.

In short, the proposal establishes a circumstance in which modeling may be the only method for demonstrating compliance. As such, the advantage of having criteria disappears -- the ability to measure against a limit -- for the model inputs traditionally have no relationship to reality. Rather, the model inputs are overly conservative with regard to almost all factors affecting dose, such as pathways, uptake, deposition and retention.

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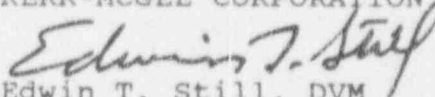
The proposal that the licensee is to name, support and consider input from a Site Specific Advisory Board (SSAB) is absolutely unacceptable. First, the public has powerful regulatory-provided opportunity for participating in legitimate issues before the NRC that involve a licensee. Second, the assertion that public participation on Site Specific Advisory Boards ". . . as specified in this rule is expected to aid in the conduct of a decommissioning program that is understandable, technologically sound, and responsive to the concerns of affected parties" is contrived at best. The document does not contain any information to substantiate the conclusion. Third, the concept seemingly puts managerial, regulatory and financial matters of the licensee in the hands of people who have no responsibility for the consequences of such matters. For these and many other reasons, the SSAB is an idea whose time has not arrived and the rule should not include any reference to such a concept. Licensees can not abdicate responsibility to non-licensee groups.

The proposal has many other undesirable and ambiguous features that need to be addressed. For example, the minimization of contamination section (§20.1408) has nothing to do with decommissioning. Further, contamination is adequately addressed in existing NRC requirements, including other parts of 10 CFR 20. Similarly, language such as is in 20.1407(a)(2)(C) re the SSAB advice to the licensee about imposing "undue burdens on the local community or other affected parties" is without bounds or definition.

Overall, we believe the proposal in its current form has too many shortcomings to be considered seriously. Significant modification, based upon scientific and technical information, is necessary.

Sincerely,

KERR-McGEE CORPORATION



Edwin T. Still, DVM

Vice President and Director

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