

DOCKET NUMBER

PROPOSED RULE

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June 13, 1980

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



Dear Sir:

The following comments on your May 13, 1980, Federal Register notice are offered in the hope that they can be of some use in developing adequate criteria.

First, an observation. It seems that the very worst of all possible circumstances is where we now find ourselves. Because of delays in reprocessing and waste disposal, coupled with the ongoing military weapons program (and to a much lesser extent the civilian power program), we now have scattered throughout the country, millions of gallons of high level wastes and tons of plutonium and fission products. All this material requires continuous monitoring and is subject to terrorism, war, natural disaster, and assorted accidents. This situation has already been allowed to continue too long, and is a major issue that should be addressed in any environmental impact statement for the technical criteria. It appears that almost any repository design based on storing insoluble wastes would have less long term impact and risk than our current practice.

Accordingly, in your criteria development please consider the following:

1. No environment can be controlled or assured for very long periods of time. Therefore the fuel reprocessing step should be calibrated so that the activity resulting from the actinide content of the finished waste form does not greatly exceed that in naturally occurring uranium or thorium ores. If this is done, the repositories would need no special considerations for the very long term, including the 10000 years mentioned in 60.122(a-2-iii). 500 years would be more reasonable, as a suggestion.
2. Large amounts of geologic survey work will be done to establish the stability and hydrology of a candidate repository formation. Since this will allow establishment of a high level of confidence in continued stability for a few hundred more years, the repository should then be allowed to accept any reasonably immobilized recoverable waste form such as fused ceramic glass, or even encased metal oxides. Best presently available technology should become the guideline, not some hypothetical future perfection which further delays efforts to clean up our present mess.
3. We already have a fission product and transuranic waste repository, namely the Nevada bomb test site. That repository does not seem to be regarded as a particularly serious hazard, and it has not been engineered for multiple barrier containment, or to prevent future human intervention. Therefore, while it is necessary to have some plan for this, it does not appear justified to study this aspect of the problem exhaustively as

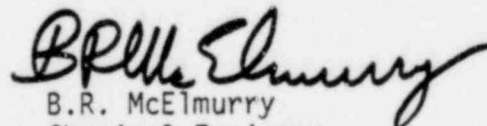
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suggested in 60.122(1-3), nor to spend any major effort to validate the modeling of future conditions as called for in 60.122(a-6).

4. Since this is a waste repository, only packaging, not processing, of onsite waste should be required (60.132-b-5).
5. Per comment 3, major efforts to study alternative engineered barriers referred to in 60.132-C-2 do not appear reasonable or justified.
6. Section 60.132-D-1-iii does not seem creditable. If the mass of investigation done prior to the start of construction is not sufficient to generate the required confidence the site should be abandoned. No "pilot program" can prove what the site investigations didn't, unless it lasts hundreds of years.
7. Comparative evaluations of alternative waste forms for every repository, as called for in 60.133-a-1, are not justified. DOE should either specify allowable waste forms, or set specifications. In fact this appears to have done in (b), so (a) is entirely without merit.

In summary, the thrust of these comments is toward adopting criteria which tend to permit rather than hinder the development of a repository. The search for absolute perfection is futile, and dangerous, and will result in unjustified expenditures of public funds. Getting state agreement to site a repository could be made much easier, I suspect, by allowing them to charge "use fees" than it would by trying to convince them your criteria are perfect.


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