



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

POR 56-201

OCT 10 1978

Docket No. 50-201
RM 50-6

Dr. Goetz Oertel
Assistant Director for
Waste Handling
Division of Waste Management
U. S. Department of Energy
Washington, D. C. 20545

Dear Dr. Oertel:

Subject: Decommissioning Criteria for West Valley Waste Tanks

Your staff has requested the regulatory staff perspective of the subject criteria for inclusion in your current study of the West Valley site for the Congress. The information we are providing was prepared within the framework of the criteria currently being developed by the NRC for generic waste disposal. It does not contain the imprimatur of a completed regulatory action. We believe the perspective will be useful to you.

Our consultant, Ford, Bacon & Davis Utah Inc., has prepared the enclosed report, "Analysis of the West Valley Site," FBDU-247-01, for this purpose. In their work they have considered the total quantity of radioactivity as presently contained in the high level waste tanks based on NUREG-0043.^{1/} All calculations were based on these quantities without consideration of the possible removal of any isotopes prior to a solidification step. They also consider the state-licensed low level burial ground, although that is not a subject of this letter.

In addition to the above report, we have considered other information available to us, including safety analysis reports submitted by Nuclear Fuel Services, reports of both the New York State and U.S. Geological Services, and discussions with the Environmental Protection Agency.

^{1/} "Alternative Processes for Managing Existing Commercial High-Level Radioactive Wastes," published by the NRC in April 1976.

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Our general conclusions with respect to specific criteria for decommissioning the high level waste tanks are as follows:

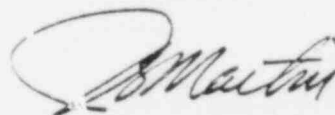
1. The Department of Energy should take the lead to develop a disposal option to safely isolate the waste as discussed in our letters to the U.S. Energy Research and Development Administration, dated March 4, 1977, September 1, 1977, and March 7, 1978.
2. The Ford, Bacon & Davis Utah report and other information clearly demonstrate that there would be very little risk to the public from any waste remaining in the tanks after removal of the bulk of the mobile liquids and further immobilization by cement grouting or some other appropriate in-tank solidification scheme.
3. Criteria in terms of specific numerical limits, as for example, disintegrations per minute per unit area, would be virtually worthless since any quantity remaining after removal of the bulk wastes would not affect the health and safety of the public.
4. The extent of decontamination and decommissioning of the waste tanks is dependent on the fate of the entire site. If a decision were to be made that all wastes must be removed from the site, which you are considering as one of the options in your study, then criteria for surface contamination, such as the maximum permissible limits shown in Table 1 of Regulatory Guide 1.86, would apply.

Although we are not able to suggest a specific criteria which could be applied to leachability of a solidification form of remaining waste, we recommend that any options selected consider reasonably low leachability as a principle requisite.

The conclusions drawn in this letter are based on current knowledge of site conditions. The NRC is planning further investigations of waste constituents, soil properties, and site geology. These investigations may provide an improved basis for the more detailed pathway analysis which will be necessary to support any of the alternatives selected for final disposition of the wastes.

We hope this information will be useful to you and would be happy to discuss any aspect at your convenience.

Sincerely,



John B. Martin, Assistant Director
Fuel Cycle Safety and Licensing
Division of Fuel Cycle and
Material Safety

Enclosure: As stated