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

APR 28 1980

Docket No. 50-201
RM 50-6

Dr. Goetz K. Oertel
Director, Division of
Waste Products
U.S. Department of Energy
Washington, D.C. 20545

Dear Dr. Oertel:

The U.S. Nuclear Regulatory Commission (NRC) Division of Waste Management has a continuing interest in activities concerning the high-level wastes at West Valley. We are interested both because of the opportunity to learn from the experiences gained and because the eventual disposition of the wastes will be part of the overall national waste disposal program.

We are pleased that the U.S. Department of Energy (DOE) is promptly initiating action under its recent authority to participate in the immobilization of the high-level wastes at West Valley. Based on the notice of intent to prepare an environmental impact statement published in the Federal Register¹ and on attendance at the public scoping meeting held at West Valley on February 2, 1980, we offer the following comments which we believe will be useful in your evaluation of environmental impacts of this proposed project.

The notice indicates that impacts are to be evaluated using borosilicate glass as a reference waste form assuming that this will represent a worst case for site impacts.² This assumption is not necessarily correct. The error arises in assuming that a different form would not be selected unless it had both better product characteristics and better processing characteristics. In fact, it is entirely likely that consideration of processing characteristics will be subordinated to obtaining better product characteristics. That is, a form may be required which has superior long-term performance characteristics in spite of somewhat greater environmental impacts during processing. Therefore, the impacts of a facility for producing borosilicate glass may not represent an upper limit for environmental impacts of producing an unspecified waste form.

¹44 FR 71859, December 12, 1979

²44 FR 71859 at 71860 states: "Since another waste would not be chosen unless it had equal or better processing and product characteristics than assumed herein for borosilicate glass monoliths, the EIS calculations can be considered limiting for any waste form in that they should represent the worst condition expected."

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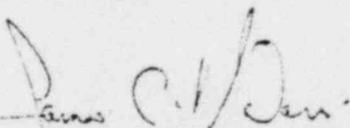
The groundwater chemistry, and geochemical, thermal, and mechanical properties of a site will affect the interaction between the waste form and the surrounding medium. If differences in these properties result in significant differences in the effect on either the waste form or the medium, then a waste form which is desirable for one medium may not be preferred for another. To provide an optimized repository in which the complete integrated system is considered as a whole, it may be necessary to tailor the waste form to the particular surrounding medium. The significance of such differences may well be trivial; on the other hand, they may be important.

Therefore, selection of a final waste form prior to selection of a repository site may not be consistent with the "systems approach" which is espoused in the IRG report and reflected in current NRC draft regulations. It is important that DOE efforts toward disposition of the high-level wastes at West Valley continue expeditiously. In determining which course of action to pursue, the above consideration favors alternatives which do not select a final waste form prematurely, as could possibly occur with the alternative indicated as preferred in the aforementioned Federal Register Notice.

The notice states that the decision on selecting a waste form is expected in the 1984 time frame and that facility operations are planned for 1987. The three-year interval for construction appears to be an ambitious and optimistic schedule even if no NRC licensing is required.

We hope these comments will be helpful and look forward to an opportunity to comment on the draft EIS.

Sincerely,


James C. Malero, Chief
High-Level Waste Licensing
Management Branch
Division of Waste Management