

February 3, 2006

Dr. Michael T. Ryan, Chairman  
Advisory Committee on Nuclear Waste  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

SUBJECT: WEST VALLEY DEMONSTRATION PROJECT - ADVISORY COMMITTEE ON  
NUCLEAR WASTE

Dear Dr. Ryan:

I am responding to your December 23, 2005, letter to the Chairman, related to the Advisory Committee on Nuclear Waste's (the Committee's) October 19, 2005, working group meeting in Ellicottsville, New York, on the West Valley Demonstration Project (WVDP). The purpose of the meeting was to receive a status of decommissioning activities and to hear about the U.S. Department of Energy (DOE) and the U.S. Nuclear Regulatory Commission (NRC) approaches to the WVDP performance assessment. This meeting was also attended by representatives of several State agencies, stakeholders, and members of the general public. Your letter provided the Committee's views on the decommissioning and the application of performance assessment to evaluate decommissioning alternatives for this site. In particular, the Committee offered several observations and recommendations.

We appreciate the Committee's thoughtful observations and recommendations. We agree that decommissioning activities at this site provide a variety of challenging issues. As the Committee states, the decommissioning activities need to address a number of complex technical issues, including the disposition of vitrified high-level waste, drummed and grouted supernatant, tanks, buildings, soil, groundwater, and buried waste with elevated levels of residual radioactive materials. We agree with the Committee's observation that erosion adjacent to these disposal areas raises concerns about potential exposure of buried waste, and the importance of erosion modeling and analysis to inform decision-making on long-term performance and decommissioning. Site decommissioning is also complicated by the involvement of several Federal and State agencies with different regulatory requirements and responsibilities related to remediation activities.

The Committee recognizes that DOE and NRC use different approaches to performance assessment for the WVDP. DOE's approach is primarily deterministic, whereas the NRC's staff approach is probabilistic. We appreciate the Committee's support for the staff's approach to performance assessment, which will enable a risk-informed review. Although the performance assessment is still in the early stages of development, it will serve to help inform our review to ensure that decommissioning actions proposed by DOE, demonstrate compliance with NRC decommissioning requirements.

M. Ryan

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We support the Committee's recommendations concerning the need for staff to be well-prepared to review DOE's erosion modeling which will serve as the basis for choices of remedial technology for disposal areas, and the importance of using subsurface characterization data (including groundwater monitoring data for strontium) in its performance assessment to verify and build confidence in modeling predictions. Staff considers both recommendations to be important in conducting a comprehensive assessment of site performance. Both issues have been, and will continue to be, considered in the staff's review.

In summary, we appreciate the Committee's observations and recommendations related to decommissioning of the West Valley site and the role of the performance assessment in that important effort. We will continue to keep the Committee informed about the results of the performance assessment, and the staff's ongoing review of decommissioning activities at this site.

Sincerely,

*/RA/*

Luis A. Reyes  
Executive Director  
for Operations

cc: Chairman Diaz  
Commissioner McGaffigan  
Commissioner Merrifield  
Commissioner Jaczko  
Commissioner Lyons  
SECY

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**/RA/**

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Executive Director  
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Commissioner McGaffigan  
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Commissioner Jaczko  
Commissioner Lyons  
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