

U.S. Department of Energy  
**Office of River Protection**

P.O. Box 450  
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00-OPD-011

JAN 3 1 2008

Mr. Michael A. Wilson, Program Manager  
Nuclear Waste Program  
State of Washington  
Department of Ecology  
P.O. Box 47600  
Olympia, Washington 98504

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Dear Mr. Wilson:

RESPONSE TO THE STATE OF WASHINGTON DEPARTMENT OF ECOLOGY  
(ECOLOGY) ON NEW TANKS PURSUANT TO M-46-01F

Reference: Ecology letter from S. Dahl and T. Valero to G. H. Sanders, RL, "Re: Response to U.S. Department of Energy Recommendations on New Tanks Pursuant to M-46-01F," dated December 1, 1999.

The U.S. Department of Energy (DOE), Office of River Protection (ORP) acknowledges the receipt of Ecology's comments, as transmitted in the above referenced letter, on the latest Operational Waste Volume Projection (OWVP) Report, inclusive of their conditional agreement of no new tanks based on securing waste treatment capability, maintaining continued safe storage, and progress in single-shell tank (SST) efforts.

ORP concurs with Ecology's recommendation to include a cost estimate and schedule for the design, construction and testing of new double-shell tanks (DST) in future OWVP assessments, and will subsequently provide this information via the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Milestone M-46. Moreover, discussion will be included which details how much SST waste could be brought into the DST's on a year-by-year basis, cognizant of waste compatibility management practices, blending consideration and interim storage for waste feed, and flammable gas restrictions and emergency tank volume requirements.

The OWVP includes waste consolidation each year when the annual update of waste volume projection is forecasted. In addition, during this past year, a trade study prepared by Numatec Hanford Corporation and WASTREN Inc., was completed, listing options to optimize space. The document, "Double-Shell Tank Space Trade Study," TWR-4654, Revision 0, provided several recommendations inclusive of the cost of new tanks, and many were added to the OWVP. As additional tank space needs arise and tank space becomes more critical, additional recommendations will be incorporated in tank space determinations.

ORP is committed to the safe storage of waste and has contracted with BNFL Inc. (BNFL) to develop designs and plans to construct and operate a waste vitrification plant to treat at least 10 percent by mass and 25 percent of the radioactivity of tank waste by fiscal year (FY) 2018, with expansion capabilities for the balance of the mission. Wastes from DSTs will be removed and vitrified during Phase 1 which will increase the limited availability of DST space to support subsequent SST retrievals in the future. Future management of DST space to accommodate waste delivery requirements is complex. DSTs are required to stage and verify waste composition prior to acceptance by BNFL, accept returns of out-of-specification waste and to provide necessary blending space for mixing various waste streams to accommodate BNFL waste processing requirements.

The ability to carry out the River Protection Project (RPP) mission depends on continued availability of tank capacity for waste storage and feed delivery. Thus, periodic assessment of tank conditions is necessary to satisfy Washington Administrative Code 173-303-640(2) requirements for Tank System Integrity Assessment, and also to support programmatic decisions on managing risks associated with aging facilities. In accordance with the "Double Shell Tank Integrity Tank System Program Plan," dated November 1997, ORP and Ecology agreed that the tank examination requirements supporting the initial integrity assessment for DSTs would be satisfied by visual examination, and supplemented by ultrasonic examination of selected areas of at least six DSTs. ORP agrees that extending ultrasonic examination to additional DSTs is prudent. During FY 2000, ultrasonic examination is scheduled on one additional DST, plus additional locations on several of the DSTs previously examined. The planned ultrasonic examination scope will be expanded to eventually include all 28 DSTs and is reflected in the current RPP Cost and Schedule Baseline. ORP recognizes that Ecology is currently conducting an inspection to evaluate completion of Tri-Party Agreement Milestone M-32. Results of the inspection are expected in January 2000.

ORP will continue to work with Ecology to assess the potential of current tank releases from interim stabilized SSTs. ORP supports the conclusion that interim stabilized tanks are not presently leaking. ORP is developing a Vadose Zone Monitoring Program around suspect tanks following completion of the current baseline spectral gamma logging to assure safe storage. Additionally, ORP is continuing work in the tank farms to meet the proposed Tri-Party Agreement Milestone M-45-50/60 series to assess the nature and extent of past leaks and development of mitigation actions through the Resource Conservation and Recovery Act Feasibility Investigations and Corrective Measures Studies on impacted Waste Management Areas.

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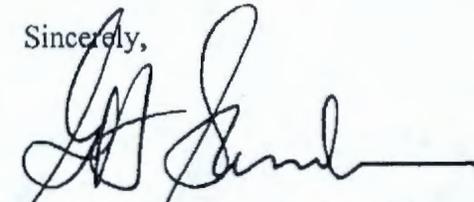
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ORP and Ecology have been actively engaged in developing and implementing a SST Program which meets waste feed delivery requirements, inclusive of advanced retrieval technology demonstrations and balance of mission definition. Near-term activities scoped within the FY 2000 timeframe include planning and scheduling of waste retrieval technology development and demonstration, retrieval leak detection and mitigation activities, and SST tank integrity studies which will be integrated and risk based for use in subsequent SST retrieval campaigns. ORP is currently evaluating the forecasts of potential DST availability for early SST retrievals due to the revised estimate for Saltwell liquid transfers and will apprise Ecology of the results this winter.

ORP believes that the efforts underway and those currently in development satisfy the conditional provisions in the referenced letter and will continue to work with Ecology as the aforementioned activities mature.

Sincerely,



George H. Sanders, Program Manager  
Office of Regulatory Liaison

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