



U.S. Department of Energy
Office of River Protection

0055549

P.O. Box 450
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OCT 15 2001

01-REQ-054

Mr. Michael A. Wilson, Program Manager
Nuclear Waste Program
State of Washington
Department of Ecology
1315 W. Fourth Avenue
Kennewick, Washington 99336

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Dear Mr. Wilson:

**HANFORD IMMOBILIZED LOW-ACTIVITY WASTE PERFORMANCE ASSESSMENT:
2001 VERSION**

Reference: ORP letter from G. H. Sanders to M. Wilson, Ecology, "Completion of Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) December 2001 Milestone M-90-05T, 'Submit Final Immobilized Low-Activity Waste Disposal Facility Performance Assessment to Ecology for Review'," 98-WDD-069, dated June 29, 1998.

The U.S. Department of Energy (DOE), Office of River Protection (ORP) is pleased to provide the enclosed report, DOE/ORP-2000-24, Rev. 0, "Hanford Immobilized Low-Activity Waste Performance Assessment: 2001 Version," for your information. This Report was submitted to Headquarters on September 19, 2001, to support a Low-Level Waste Disposal Facility Federal Review Group recommendation on re-issuance of the Disposal Authorization Statement for the Hanford Immobilized Low Activity Waste (ILAW) Disposal Facility and to meet the requirement for an annual Performance Assessment (PA) summary.

The Draft Report of DOE/ORP-2000-24, Rev. b, was reviewed by staff from ORP, DOE Richland Operations Office (RL), and the State of Washington Department of Ecology (Ecology). All comments have been addressed and the final report, DOE/ORP-2000-24, Rev. 0 published on August 24, 2001, can be found on the internet at: http://www.bhi-erc.com/projects/vadose/field/ilaw/ORP_2000_24.pdf.

This Report updates the 1998 PA, DOE/RL-97-69, which was submitted to Ecology (Reference) in fulfillment of the Tri-Party Agreement target Milestone M-90-05T. Changes from the 1998 PA to the 2001 PA, include a new Project W-520 ILAW Disposal Facility design concept, revised Hanford best basis inventory estimates, more prototypic glass testing data, and more site-specific hydrogeological data. DOE/ORP-2000-24 is based on the requirements in DOE Order 435.1-1, "Radioactive Waste Management." The Report also addresses certain technical requirements for Low-Level Waste Disposal as issued by the Nuclear Regulatory Commission in the Code of Federal Regulations 10CFR61, "Disposal of Radioactive Wastes." In addition the Report includes an impact analysis of non-radiological chemicals of importance on ground water and surface water quality based on the most restrictive regulations for each.

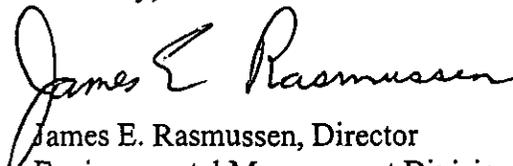
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The Report documents our current understanding of the radiological risks to humans and the environment that will result from the disposal of ILAW from the planned treatment and immobilization of Hanford tank waste. The analyses presented in the Report show that radiological performance objectives will be met when based on a reasonable set of assumptions. The Report also includes analyses that define system requirements that will be taken into account in the ILAW disposal facility design and ILAW specifications for Tank Waste Treatment and Immobilization. ORP will continue waste form testing, release model development, geotechnical data collection, and transport modeling to add confidence to the overall conclusion that human health and the environment will be protected after this disposal action. The next update of the ILAW PA is scheduled for fiscal year 2005.

If you have any questions, please contact me (509) 372-0835, or your staff may contact Carol Babel, Requirements Division, (509) 373-9281

Sincerely,


James E. Rasmussen, Director
Environmental Management Division

REQ:CAB

Enclosure:

cc: w/encl:

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TPA Administrative Record, H6-08

cc: w/o encl:

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