



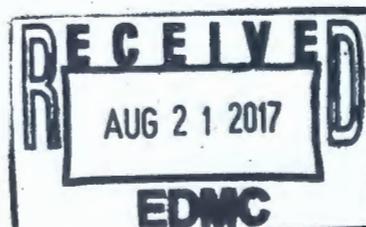
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**Department of Energy**  
Richland Operations Office  
P.O. Box 550  
Richland, Washington 99352

98-WDD-069

JUN 29 1998

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



Dear Mr. Wilson:

COMPLETION OF HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) DECEMBER 2001 MILESTONE M-90-05T, "SUBMIT FINAL IMMOBILIZED LOW-ACTIVITY WASTE (ILAW) DISPOSAL FACILITY PERFORMANCE ASSESSMENT TO ECOLOGY FOR REVIEW"

- References:
- 1) Letter from S. L. Dahl, Ecology, to C. V. Banks, RL, "Comments on Hanford Immobilized Low-Activity Tank Waste Performance Assessment (DOE/RL-97-69, Rev B) March 1998," dated February 13, 1998.
  - 2) C.T. Kincaid et al., "Composite Analysis for Low-Level Waste Disposal in the 200 Area Plateau of the Hanford Site," PNNL-11800, March 1998.

The U.S. Department of Energy (DOE), Richland Operations Office (RL) is pleased to submit the enclosed report, DOE/RL-97-69, Rev. 0, "Hanford Immobilized Low-Activity Waste Performance Assessment" for review by the State of Washington Department of Ecology (Ecology). This document is submitted to Ecology in fulfillment of the Tri-Party Agreement target Milestone M-90-05T. In addition, by copy coverage of this letter, we are also inviting other groups with an interest in this subject to review the report and provide comments to RL.

This performance assessment was recently completed by the RL Tank Waste Remediation System (TWRS) Office in order to document the radiological risks to humans and the environment expected to result from the disposal of ILAW to be generated during the remediation of Hanford tank waste. The analyses presented in the report show that radiological performance objectives will be met based on a reasonable set of assumptions. The report also includes analyses that define system requirements to be taken into account in the design of ILAW disposal facilities.

JUN 29 1998

Earlier versions of this performance assessment have already been subjected to an extensive review process, including review by an independent panel of experts and Ecology (Reference 1) as summarized in Appendix F of the report. The report was transmitted to DOE Headquarters (HQ) on June 5, 1998, for review by the DOE Low-Level Waste Federal Review Group (LFRG). The purpose of the LFRG review is to provide HQ with the basis to issue a "disposal authorization statement," which is required by DOE policy prior to construction and operation of any new low-level radioactive waste disposal facility. The LFRG will also review the Reference 2 composite analysis, which was previously provided to Ecology. This review process is currently scheduled to be completed in March 1999.

This performance assessment addresses disposal of the entire ensemble of waste ILAW packages projected for the TWRS mission. However, RL is only seeking disposal authorization statements for construction and operation of Project W-465 and Project W-520. Project W-465 will modify four unused Grout Vaults for receipt of ILAW, and Project W-520 will build a small number of new vaults in the 200 East area location designated for disposal of ILAW from tank waste treatment. These projects together will accommodate approximately 13 percent of the total ILAW projected for TWRS.

Project W-465 was originally conceived to be an ILAW interim storage facility based on the assumption that a performance assessment for an ILAW disposal facility could not be completed and approved in time for receipt of the initial ILAW product from tank waste remediation. However, performance assessment activities have progressed more rapidly than previously anticipated. In addition, the DOE performance assessment review process no longer requires preparation of a "preliminary" and a "final" performance assessment, although periodic updates are required. Therefore, we are transmitting DOE/RL-97-69 to Ecology at this time in order to provide an opportunity for input into the DOE decision process for construction and operation of Projects W-465 and W-520 as disposal facilities. We believe this action is consistent with the underlying rationale for Tri-Party Agreement target Milestone M-90-05T, even though the milestone is not due until December 2001. However, RL also recognizes the need to prepare and submit a Tri-Party Agreement change request to Ecology in order to replace M-20 and M-90 interim storage facility milestones with new Tri-Party Agreement milestones based on the proposed redesignation of Project W-465 as a disposal facility.

DOE/RL-97-69 is based on the requirements in DOE Order 5820.2A, "Radioactive Waste Management" and on more recent HQ guidance for specific radiological performance objectives and performance assessment document contents. In addition, Appendix H in the report provides a crosswalk to performance assessment guidance associated with the new draft DOE Order 435.1, "Radioactive Waste Management." The report also addresses certain technical requirements for low-level waste disposal as issued by the Nuclear Regulatory Commission in 10CFR61, "Disposal of Radioactive Wastes." These requirements apply specifically to the disposal of low-level radioactive wastes.

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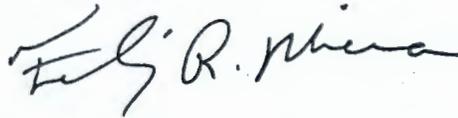
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JUN 29 1998

The next update of the ILAW performance assessment is currently scheduled for 2001. In the meantime, TWRS is planning to continue geotechnical data collection and transport model testing in coordination with the Hanford Site Integrated Vadose Zone/ Groundwater/ Columbia River Project. In addition, waste form testing and release model development will continue in coordination with other DOE waste form testing activities. It is expected that the results of these studies will confirm the data used in this performance assessment and will add confidence in the overall conclusion that human health and the environment will be protected after this disposal action. Furthermore, the results will support optimization of both the disposal system design and ILAW specifications for tank waste treatment and immobilization. Therefore, we would appreciate receiving comments from Ecology and other interested parties by the end of August 1998 so that we may consider them before we finalize Fiscal Year 1999 performance assessment work plans.

If you have any questions, please contact Phil LaMont on (509) 376-6117, or Bruce Nicoll on (509) 376-6006.

Sincerely,



George H. Sanders, Administrator  
Hanford Tri-Party Agreement

WDD:PEL

Enclosure

cc w/encl:

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