STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
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July 24, 2006

Mr. Roy J. Schepens, Manager
Office of River Protection
United States Department of Energy
P.O. Box 450, MSIN: H6-60
Richland, Washington 99352

Mr. Mark S. Spears, President and Chief Executive Officer
CH2M Hill Hanford Group, Inc.
P.O. Box 1500, MSIN: H6-08
Richland, Washington 99352

Re: Letters from R. Schepens, USDOE-ORP, to Ms. Jane Hedges, Ecology

- Submittal of *Final Dangerous and/or Mixed Waste Research and Development and Demonstration Permit (RD&D Permit) for Demonstration Bulk Vitrification System (DBVS) the In-Container Vitrification System, 06-ED-039*, dated May 4, 2006
- Submittal of *Final Dangerous and/or Mixed Waste Research, Development, and Demonstration Permit for the Demonstration Bulk Vitrification Facility: Required Submittal for Off-Gas Treatment System, 06-ESQ-51*, dated June 1, 2006
- Revisions to the Required Submittal for the *Demonstration Bulk Vitrification System Facility Off-gas Treatment System Design, 06ESQ-099*, dated July 21, 2006

Dear Mr. Schepens and Mr. Spears:

The Department of Ecology has completed review of the Demonstration Bulk Vitrification System (DBVS) engineering design and supporting information for the In-Container Vitrification (ICV) System (Design Package #6), the Off-Gas Treatment System (OGTS) (Design Package #7), and the accompanying Independent Qualified Registered Professional Engineer certified reports. These materials were submitted by the United States Department of Energy - Office of River Protection (USDOE-ORP) in accordance with its Dangerous Waste Research, Development, and Demonstration Facility Permit (RD&D) for the DBVS Permit WA 7890008967.

Based on the information submitted pursuant to Permit Conditions III.G.1, IV.A.8.b, IV.A.8.c, IV.A.8.e, IV.A.8.f, V.I.2, V.I.3, V.I.5.a, V.I.5.b, V.I.5.c, and V.I.6.f.i, Ecology approves construction of the In-Container Vitrification System and the Off-Gas Treatment System, subject to implementing Enclosure 1, Record of Comment Resolution (RCR).

This approval does not constitute Ecology approval of information unrelated to the ICV System or the OGTS or approval of operating procedures with respect to Permit Conditions II.A.5. and II.C.6.

In addition, this approval letter identifies and reaffirms the following list of RCRs located in the final OGTS and ICV comments and responses (Enclosure 1):

OGTS RCR #19 (Conaway): If the emergency bypass system is activated during the processing of the 50 boxes, the current and future campaign plan(s) will include an analysis. This will determine the underlying cause and actions that may include design changes of the operational system and revised operating procedures to eliminate/minimize further occurrences subject to Ecology review and approval.

OGTS RCR #21 and #41 (Conaway): Further details on the multi-pass catalyst bed to include a complete catalyst composition with constituent concentrations will be provided to Ecology and are subject to review and approval.

OGTS RCR #25 (Conaway): The supporting methodology for setting the low flow target level, the low flow target level, and the supporting calculations for the specified target level will be provided to Ecology for review and approval in the next revision of the OGTS design. The low flow target levels will also be provided to Ecology for inclusion into Permit Attachment LL, Appendix E for review and approval.

OGTS RCR #43 and #22 (Conaway): Ports in the stack will be added to the final design to accommodate manual gas sampling, and will be provided to Ecology for their review and approval.

ICV RCR #6 (Conaway): Submittal for Ecology review and approval of the design details for the ICV box core sampling system.

ICV RCR #7 (Conaway): Submittal for Ecology review and approval of specifications for ICV box thermocouples and cameras documenting their capabilities (e.g., temperature range/tolerance, camera view span, life expectancy, etc.). It will also include a discussion of these capabilities with respect to projected operating conditions.

A copy of the pages to be inserted into the DBVS Facility Permit, WA 7890008967, including a revised List of Attachments to the Permit and instructions for posting these pages to the permit, are included (Enclosure 2). These enclosed pages hereby become official parts of the RD&D Permit for the DBVS Facility and are to be inserted into the Permit.

If you have any questions regarding this action, contact Kathy Conaway at 509-372-7890 or Suzanne Dahl at 509-372-7892.

Sincerely,

Jane A. Hedges
Program Manager
Nuclear Waste Program

KAC:pll

Enclosures (2)

cc w/enc: James F. Thompson, USDOE
Lori Huffman, USDOE
John Van Beek CH2M
Felix Miera, CH2M
Administrative Record

cc w/o enc: Billie Mauss, USDOE
Peter Brockman, CH2M
Joel Eacker, CH2M
Moses Jaraysi, CH2M
Dave Shuford, CH2M
Stuart Harris, CTUIR
Gabriel Bohnee, NPT
Russell Jim, YN
Todd Martin, HAB
Ken Niles, ODOE
Environmental Portal