

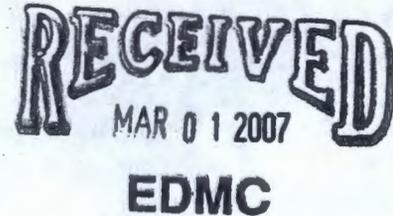


FEB 28 2007

07-WTP-060

CCN:150212

Ms. Jane Hedges, Program Manager
Nuclear Waste Program
Washington State
Department of Ecology
3100 Port of Benton Blvd.
Richland, Washington 99354



Dear Ms. Hedges:

WEAR ALLOWANCES AND INTEGRITY ASSESSMENT FOR THE WASTE TREATMENT AND IMMOBILIZATION PLANT (WTP) VESSELS WITH PULSE JET MIXERS (PJM)

- References:
1. ORP/BNI letter from R. J. Schepens, ORP, and W. S. Elkins, BNI, "Wear Allowances and Integrity Assessment for Waste Treatment and Immobilization Plant (WTP) Vessels with Pulse Jet Mixers," 06-WTP-106, dated August 3, 2006.
 2. Ecology letter from S. Dahl, to R. J. Schepens, ORP, and W. S. Elkins, BNI, "Wear Allowance and Integrity Assessment for Vessels with Pulse Jet Mixers," dated June 28, 2006.

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This letter addresses the commitments made in Reference 1 to complete an independent expert review of the methods and data used in the erosion wear estimates, reassess the tank waste particle characteristics, and determine if additional erosion wear testing is required.

In Reference 2, Ecology directed the WTP project to provide additional wear allowance thickness on vessel bottoms equal to four times the calculated wear rate based on the FanAiming erosion estimate for nine PJM mixed vessels, or to conduct facility-specific erosion testing to support the erosion estimate design basis. Bechtel National, Inc. (BNI) and the U.S. Department of Energy, Office of River Protection (ORP) have agreed to conduct additional erosion wear testing. This decision to conduct additional testing is based upon:

- Completion of the independent expert review of the wear estimate calculation by Dr. Hector Clark and Dr. Margaret Stack. Both Dr. Clark and Dr. Stack supported the calculational approach used by BNI to estimate erosion wear. However, they recommended additional testing be completed in conditions that more closely represent WTP operating conditions.

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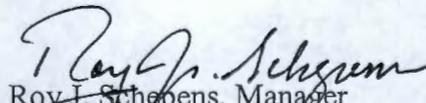
- Completion of an assessment of the Hanford Tank Waste particle size distribution. This revised particle size distribution assessment indicated a broader size distribution compared to current estimates.

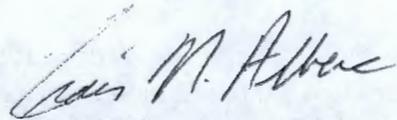
Early activities associated with the erosion testing program have been initiated. The objective of the testing program is to evaluate a range of anticipated and bounding conditions to determine potential wear rates from PJM operation. ORP and BNI will continue to engage and inform members of your staff as the test plan is developed (expected by March 2007).

The testing program is being accelerated for completion by April 2007 to support project critical schedule drivers associated with closing the erosion wear issue and continuing uninterrupted fabrication of PJM mixed vessels.

The design of the PJM mixed vessels will be revised, if required, when the erosion wear test results become available. ORP and BNI will communicate the results of the testing program and any required vessel design changes to you following the completion of testing. This response will include a schedule for revising the design and submitting a permit modification to the Washington State Department of Ecology if required. In addition the response will propose a schedule for submitting the revised integrity assessment documents consistent with reference 2.

If you have any questions, please contact me, or your staff may contact Lori A. Huffman, Office of Environmental Safety and Quality, (509) 376-0104, or Brad G. Erlandson, BNI, (509) 371-3826.


Roy J. Schepens, Manager
Office of River Protection


for W. S. Elkins, Project Director
Bechtel National, Inc.

WTP:LKH

cc: C. M. Albert, BNI
J. M. Atwood, BNI
R. A. Brouns, BNI
B. Dubiel, BNI
G. M. Duncan, BNI
W. S. Elkins, BNI
B. G. Erlandson, BNI
P. A. Fisher, BNI
J. S. Hill, BNI
D. A. Klein, BNI
L. T. Lamm, BNI
P. E. Peistrup, BNI
J. F. Schneider, BNI
C. J. Winkler, BNI
M. Anderson-Moore, Ecology
B. Becker-Khaleel, Ecology
L. J. Cusack, Ecology
S. L. Dahl, Ecology
G. P. Davis, Ecology
K. Elsethagen, Ecology
E. A. Fredenburg, Ecology
A. Hamar, Ecology
S. A. Thompson, FHI
K. Niles, Oregon Energy
A. C. McKarns, RL
Administrative Record (WTP H-0-8)
BNI Correspondence
Environmental Portal, LMSI