



U.S. Department of Energy

Office of River Protection

P.O. Box 450
Richland, Washington 99352

04-WED-040

AUG 03 2004

The Honorable John T. Conway
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, N.W., Suite 700
Washington, D.C. 20004-2901

Dear Mr. Chairman:

WASTE TREATMENT AND IMMOBILIZATION PLANT (WTP) LOW ACTIVITY WASTE
(LAW) STRUCTURAL REPORT

- References:
1. DNFSB letter from J. T. Conway to J. H. Roberson, HQ, dated November 14, 2002.
 2. ORP letter from R. J. Schepens to J. T. Conway, DNFSB, "Waste Treatment and Immobilization Plant (WTP) Summary Structural Report (SSR)," 04-WED-018, dated July 9, 2004.

By Reference 1, you asked the U.S. Department of Energy, Office of River Protection (ORP) to develop a "load path report" for the three major WTP process facilities. In Reference 2 we provided you with our outline and schedule for completion of the high level waste (HLW) summary structural report (SSR), the pretreatment (PT) SSR, and an abbreviated structural report for low activity waste (LAW) developed by the ORP peer review team (PRT).

We are pleased to attach for your use, three copies of Revision 0 of the LAW structural report. The basis for this report is an extensive review and evaluation of Bechtel National, Inc. (BNI) drawings and calculations by the ORP PRT together with draft BNI load path evaluations of the LAW structure. From these materials, the PRT was able to develop an understanding of the structural behavior of LAW when subjected to seismic loads. The PRT has found, in general, that the structure behaves predictably and that the design has been competently prepared, with one significant exception, in accordance with criteria and applicable codes. The one exception, which is discussed in the report, is that loads in seismic collectors were not amplified by the omega factor as prescribed by the Uniform Building Code, which is the governing code for performance category 2 structures. BNI is responding quickly to this issue and has initiated design effort this week to add additional collector steel where required and to evaluate alternative load paths for portions of the slab at Elevation 3 ft. that have already been constructed.

The report does list other open issues regarding LAW that will be tracked to closure by the PRT. However, it is believed that sufficient information is available to provide this report to you at this time which should fulfill the need for a LAW SSR.

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If you have any questions, please contact me, or your staff may call John S. Treadwell, WTP
Engineering Division, (509) 373-6355.

Sincerely,


Roy J. Schepens
Manager

WED:JST

Attachment (3 copies)

cc w/attach:
M. B. Whitaker, DR-1
I. R. Triay, EM-3