



U.S. Department of Energy

Office of River Protection

0066926

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Richland, Washington 99352

SEP 27 2005

05-TED-063

Mr. Michael A. Wilson, Program Manager
Nuclear Waste Program
State of Washington
Department of Ecology
3100 Port of Benton Boulevard
Richland, Washington 99352

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EDMC

Dear Mr. Wilson:

COMPLETION OF HANFORD FEDERAL FACILITY AGREEMENT AND
CONSENT ORDER (HFFACO) MILESTONE M-48, SUBMIT RESULTS OF FOUR
DOUBLE - SHELL TANKS (DST) NOT PREVIOUSLY EXAMINED

The HFFACO Milestone Series, M-48-13, requires the Ultrasonic Testing (UT) of the primary tank walls in four DSTs not previously examined be submitted to the State of Washington Department of Ecology (Ecology) by September 30, 2005. The attached documents contain the UT results for Tanks 241-AN-103, 241-AN-104, 241-AP-102, and 241-AP-106. This submittal completes Milestone M-48-13.

The examination of these four tanks revealed no crack-like indications in the walls or in any of the weld heat-affected zones, and no pitting or thinning exceeding the established acceptance criteria. However, several areas on Tank 241-AP-102 met the nominal 50 percent of the acceptance criteria used by Hanford Tank Farms for reporting and tracking localized plate thinning, pitting, and cracking.

Below is a summary of UT results for the four DSTs. Seven reportable areas were identified during the primary tank vertical wall, liquid-air interface and vertical weld scans of Plates #2 and #4 in DST 241-AP-102. These reportable indications on Plates #2 and #4 have been attributed to general corrosion. A total of 0.24 square inches of thinned area in two areas of Plate #2 were identified, measuring 0.07 inches deep. Five areas of thinning were identified in Plate #4 in the vertical weld heat-affected zone, measuring 7.95 square inches in area and ranging in depth from 0.087 to 0.1 inches deep. There were no other reportable areas in any of the other plates or in any of the weld heat-affected zones examined.

There were no wall thinning, pitting indications, nor any crack-like indications detected exceeding 50 percent of the acceptance criteria in any of the plate areas or weld heat-affected zones examined in DST 241-AN-103, 241-AN-104, and 241-AP-106.

Mr. Michael A. Wilson
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To date, UT examinations have been completed on all 28 DSTs. Ecology approval by October 30, 2005, is requested as required by M-48-15 to begin re-examination of six DSTs previously examined. DSTs 241-AN-107, 241-AW-103, and 241-AY-102 are scheduled for Fiscal Year (FY) 2006, and 241-AN-106, 241-AP-107, and 241-AZ-101 are planned for FY 2007. The U.S. Department of Energy, Office of River Protection will commit personnel and resources for this planned work scope beginning in FY 2006.

During FY 2005, six DST visual inspections were partially completed on Tanks 241-AN-101, 241-AP-102, 241-AP-104, and 241-AP-106. DSTs 241-AN-101 and 241-AP-101 were visually examined through the one primary space in-tank riser, while Tanks 241-AP-102, 241-AP-104, 241-AP-103 and 241-AP-106 examined only the annulus region through four risers. No visual indications of corrosion were identified. Visual examinations in both the primary and annulus regions for these six DSTs are scheduled to be completed prior to the start of FY 2006 UT examinations.

If you have any questions, you may contact me, or your staff may contact Victor Callahan, Tank Farms Technical Engineering Division, and (509) 373-9880.

Sincerely,


Roy J. Schepens
Manager

TED: VLC

Attachments:

1. RPP-RPT-23205
2. RPP-RPT-23573
3. RPP-RPT-24476
4. RPP-RPT-26254

cc w/attachs:

TPA Aministrative File

J. J. Lyon, Ecology

cc w/o attachs:

M. N. Jaraysi, CH2M HILL

CH2M HILL Correspondence Control