

Office of River Protection, State of Washington Department of Ecology
Tank Waste Retrieval Work Plan/Functions and Requirements Change Notice
(Per Hanford Federal Facility Agreement and Consent Order Section 9.3)

1220771

1. Document Title and Number: RPP-22393, Rev. 6A, 241-C-102, 241-C-104, 241-C-107, 241-C-108 and 241-C-112 Tanks Waste Retrieval Work Plan

<p>2. Minor Field Change: (Section 12.4 HFFACO Action Plan)</p> <p><input type="checkbox"/> Yes: (WRPS Signature Only – Attach signed form to Primary Document for record purposes)</p> <p><input checked="" type="checkbox"/> No: Proceed to Box 3</p>	<p>3. Document Issue Date:</p> <p style="text-align: center;">05/21/12</p>	<p>5. Notice Number: 2013-05</p>
	<p>4. Document Modification Notice Date: 5/06/13</p>	

<p>6. Do proposed changes require schedule changes? (Would this extend completion of retrieval beyond 12 months from date of initiation?)</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>7. Do proposed changes include specific additions, deletions, or modification to scope and/or requirements which affect the overall intent of the plan?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>8. (Check only one box)</p> <p><input type="checkbox"/> Significant Modification (Check if the answer to question in either section 6 or 7 is “yes”. Significant modifications require revision of the primary document.)</p> <p><input type="checkbox"/> Minor Modification</p> <p><input checked="" type="checkbox"/> Requires modification of the document</p> <p><input checked="" type="checkbox"/> Can be accomplished with Modification Notice.</p>
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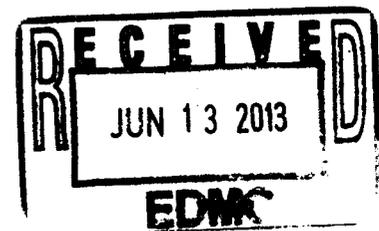
9. Description and Justification of Change:

Change Description: A change notice is needed to modify the TWRWP to allow an alternative leak detection method for tank C-102. During retrieval construction some water was added to tank C-102 and the tank already contained 62,000 gallons (see RPP-22393 Table 2-4) of interstitial liquid exceeding the interim stabilization criterion of 50,000 gallons. According to Figure 4-3 of the TWRWP, if a tank does not meet interim stabilization criteria, weekly moisture logging is required if the HRR is not available for daily operation. Tank C-102 is not in active retrieval so daily HRR monitoring is not warranted; however, instead of performing weekly moisture logging, this change would allow monitoring with the HRR system for 30 days once a quarter. HRR monitoring is preferred because the HRR is expected to have better coverage than the 5 drywells available for moisture logging. Weekly moisture logging will be used as a backup method to quarterly HRR monitoring. HRR will be used for daily monitoring when active retrieval starts as specified in the TWRWP.

Justifications:

- Section 4.2.1, pg 4-7—updated language for use of HRR.

See the attached redline strikeout pages.



10. Impact of Change:

HRR will be used to detect leaks while C-102 contains interstitial liquid volume greater than the interim stabilization criteria and during active retrieval. If weekly drywell monitoring is used 12 leak detection

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monitoring checks would be performed. If the HRR is used during the same period, up to 30 leak detection monitoring checks can be obtained. The deployed HRR system uses surface electrodes to provide more comprehensive monitoring for the portions around C-102 for which there are no drywells.

11. Additional Requirements and/or Provisions

Approvals

Washington River Protection Solutions, LLC.	Office of River Protection	State of Wash. Dept. of Ecology
<input type="checkbox"/> Provisional Approval ² Date	<input type="checkbox"/> Provisional Approval ² Date	<input type="checkbox"/> Provisional Approval ² Date
<input checked="" type="checkbox"/> Final Approval Date 5/15/13	<input checked="" type="checkbox"/> Final Approval Date 5/15/13	<input checked="" type="checkbox"/> Final Approval Date 5-15-13

Notes
 1 - For use by Ecology to identify any additional information needed to make a decision regarding the request for modifications. In addition, Ecology will identify actions, if any, regarding the modification request that DOE may take pending Ecology's final decision
 2 - Provisional approval allows DOE and it's contractors to take specific actions identified in section 11, prior to final approval of this modification.

4.2.1 Description of Proposed LDM System Configuration Used During Waste Retrieval

(Physical and Operating)

a. Describe the proposed LDM system configuration to be used during waste retrieval.

The leak detection and monitoring (LDM) method for C-102, C-104, C-107, C-108 and C-112 during retrieval uses deployment of a high-resolution resistivity (HRR) LDM system with drywells and the tank thermocouple as electrodes. The HRR system will be fully implemented administratively as well as physically implemented in the field when used.

Established drywell logging methods were used to survey the drywells surrounding C-108 prior to the start of retrieval, and will be used to survey the drywells surrounding C-102, C-104, C-107 and C-112 before the start of retrieval in these tanks. Drywell monitoring will be used as a backup means of leak detection if the HRR system becomes inoperable. The use of drywell logging as a backup is specified in 4.2.1.1.

Under limited conditions, as specified in 4.2.1.2, SST liquid level measurement may also be used for leak detection and monitoring.

Figure 4-3 is a logic chart showing what leak detection method(s) are used, and when **with one exception for C-102. In lieu of weekly moisture logging that is required because the C-102 interstitial liquid volume exceeds the interim stabilization criteria (HNF-EP-0182), HRR may be used for 30 days once a quarter prior to the start of retrieval. Any other changes to leak detection will be approved on a tank-by-tank basis.** Details of the methods shown in Figure 4-3 are provided in 4.2.1.1 through 4.2.1.3.

LDM systems consisting of standard leak detection arrangements are used for transfer lines and pits.

The LDM system used for the receiver DST is the same one described in Section 4.1.3.

Any resulting changes to LDM activities described in this TWRWP will be approved by Ecology within 24 hours through the Change Notice form.