

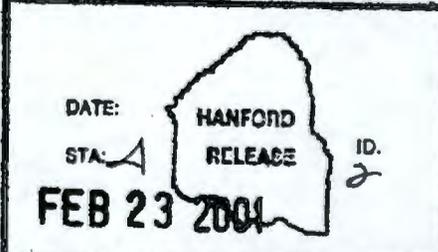
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ENGINEERING CHANGE NOTICE

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1. ECN 631966

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2. ECN Category (mark one)		3. Originator's Name, Organization, MSIN, and Telephone No.		4. USQ Required?		5. Date	
Supplemental <input type="checkbox"/>		LA Domnoske-Rauch/DST		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2/22/2001	
Direct Revision <input checked="" type="checkbox"/>		Engineering/S5-13/376-9886		6. Project Title/No./Work Order No.		7. Bldg./Sys./Fac. No.	
Change ECN <input type="checkbox"/>		NA		NA		8. Approval Designator	
Temporary <input type="checkbox"/>		9. Document Numbers Changed by this ECN (includes sheet no. and rev.)		10. Related ECN No(s).		11. Related PO No.	
Standby <input type="checkbox"/>		HNF-3484 Rev 3		NA		NA	
Supersedure <input type="checkbox"/>		12a. Modification Work		12b. Work Package No.		12c. Modification Work Completed	
Cancel/Void <input type="checkbox"/>		<input type="checkbox"/> Yes (fill out Blk. 12b)		NA		NA	
		<input checked="" type="checkbox"/> No (NA Blks. 12b, 12c, 12d)		Design Authority/Cog. Engineer Signature & Date		Design Authority/Cog. Engineer Signature & Date	
13a. Description of Change				13b. Design Baseline Document? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Revise page 2, Section 1.2 of Double Shell Tank Emergency Pumping Guide, HNF-3484 Revision 3, to include the following statement:							
"The Authorization Basis requirements for DST Emergency Pumping are implemented through operating procedures and work packages."							
14a. Justification (mark one)				14b. Justification Details			
Criteria Change <input checked="" type="checkbox"/>				This statement clarifies that the DST Emergency Pumping Guide is a guide only and Authorization Basis requirements are implemented in operating procedures and work packages.			
Design Improvement <input type="checkbox"/>				This change to the document will not change collective dose since it has no impact on radiological sources, contamination control, or shielding.			
Environmental <input type="checkbox"/>							
Facility Deactivation <input type="checkbox"/>							
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15. Distribution (include name, MSIN, and no. of copies)						RELEASE STAMP	
LA Domnoske-Rauch S5-13 RG Harwood H6-60 DB Smet R1-56							
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WE Bryan T4-07 RW Reed T4-07							
BG Erlandson R1-51 D SCott, JR S8-07							

Double-Shell Tank Emergency Pumping Guide

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CH2MHILL Hanford Group Inc.
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U.S. Department of Energy Contract DE-AC06-96RL13200

EDT/ECN: 631966 UC: 2020
Org Code: CL243100 Charge Code: 111273
B&R Code: EW3130010 Total Pages: 55

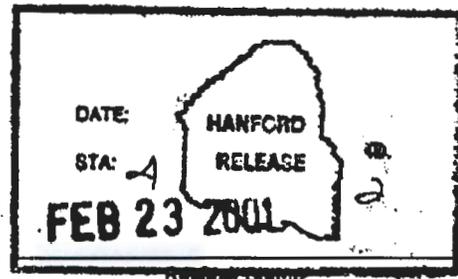
Key Words: Double Shell Tank, Annulus Emergency Pumping, Tank Farm Emergency, Pumping, Secondary Containment, Annulus

Abstract: This document provides preplanning necessary to expeditiously remove any waste that may leak from the primary tank to the secondary tank for Hanford's 28 DSTs. The strategy is described, applicable emergency procedures are referenced, and transfer routes and pumping equipment for each tank are identified.

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Release Approval Date 2/23/01



Approved For Public Release

1 GENERAL INFORMATION

1.1 Purpose, Scope, and Background

The purpose of this plan is to provide as much preplanning as practical for pumping waste out of the annulus or secondary containment of Double-Shell Tanks (DST). If the primary tank leaks, waste would accumulate in the secondary tank. For the purposes of this report, the terms "secondary tank" and "annulus" are used interchangeably. The preplanning will expedite emergency pumping and provide the basis for demonstrating that the leaked waste will be "removed from the secondary containment system within 24 hours, or in as timely a manner as is possible" as required by the Washington Administrative Code.

There are 177 large underground waste storage tanks in the Hanford 200 East and 200 West Areas. There are 149 single-shell tanks (SSTs), and 28 DSTs. The scope of this plan includes all 28 of the Hanford DSTs in AN, AP, AW, AY, AZ and SY Tank Farms. The scope also includes the transfer lines, pump pits, valve pits, jumpers, transfer pumps, sump pumps, and procedures necessary to accomplish the emergency pumping.

An alternative study (ARES, 1999) was completed in March 1999 to identify a cost effective method of maintaining emergency annulus pumping equipment in a reliable condition. RPP's management has approved funds for Fiscal Year 2000 activities to refine and implement the study's recommendation.

1.2 Summary of Information Provided

This guide contains a general description of the DSTs and discussions of the requirements, strategy, transfer routes, procedures, and equipment that will be used to expeditiously respond to a leaking DST. References to statutory requirements are included. The Authorization Basis requirements for DST Emergency Pumping are implemented through operating procedures and work packages. Information for each DST about the waste transfer routes, procedures, and equipment required for the transfers are contained or referenced in the appendices. These include:

Appendix A: PROPOSED TRANSFER ROUTES

Contains a tabulated summary description of the proposed transfer route for each DST. Routes are included for transferring the waste from the primary tank to the designated receiver tank and to an alternate receiver tank. Tank AP-108 is the designated receiver tank and AP-107 is the alternate receiver tank for emergency transfers from all DSTs except from the aging waste tanks AZ-101 and AZ-102. The designated and alternate receiver tanks for emergency transfers from AZ-101 and AZ-102 are AY-101 and AY-102 respectively. The receiver tank for both 101-SY and 103-SY is tank 108-AP or 107-AP via tank 102-SY.