

ENGINEERING CHANGE NOTICE

Page 1 of 2

1. ECN 644461

Proj.
ECN

2. ECN Category (mark one) Supplemental <input checked="" type="checkbox"/> <input type="checkbox"/> Direct Revision <input type="checkbox"/> Change ECN <input type="checkbox"/> Temporary <input type="checkbox"/> Standby <input type="checkbox"/> Supersedure <input type="checkbox"/> Cancel/Void <input type="checkbox"/>		3. Originator's Name, Organization, MSIN, and Telephone No. 376-6631 M. J. Kupfer, LMHC, H5-49		4. USQ Required? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		5. Date August 29, 1997	
		6. Project Title/No./Work Order No. Tank 241-AW-102		7. Bldg./Sys./Fac. No. NA		8. Approval Designator NA	
		9. Document Numbers Changed by this ECN (includes sheet no. and rev.) HNF-SD-WM-ER-363, Rev. 1A		10. Related ECN No(s). NA		11. Related PO No. NA	
12a. Modification Work <input type="checkbox"/> Yes (fill out Blk. 12b) <input checked="" type="checkbox"/> No (NA Blks. 12b, 12c, 12d)		12b. Work Package No. NA	12c. Modification Work Complete NA		12d. Restored to Original Condition (Temp. or Standby ECN only) NA		
		Design Authority/Cog. Engineer Signature & Date		Design Authority/Cog. Engineer Signature & Date			
13a. Description of Change Five components in Table D4-2 were changed, this ECN will replace page D-11 only, of Appendix D.				13b. Design Baseline Document? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
14a. Justification (mark one)							
Criteria Change <input type="checkbox"/>		Design Improvement <input type="checkbox"/>		Environmental <input type="checkbox"/>		Facility Deactivation <input type="checkbox"/>	
As-Found <input checked="" type="checkbox"/>		Facilitate Const <input type="checkbox"/>		Const. Error/Omission <input type="checkbox"/>		Design Error/Omission <input type="checkbox"/>	
14b. Justification Details A re-evaluation of information found in Table D4-1 of Appendix D for double-shell tank 241-AW-102 found a discrepancy with 5 component totals. This ECN replaces page D-11 to show these changes.							
15. Distribution (include name, MSIN, and no. of copies)							
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Tank Characterization Report for Double-Shell Tank 241-AW-102

M. J. Kupfer

Lockheed Martin Hanford Corporation, Richland, WA 99352
U.S. Department of Energy Contract DE-AC06-96RL13200

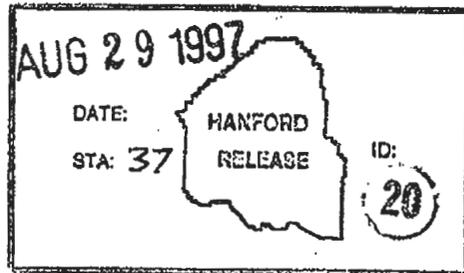
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Key Words: TCR, best-basis inventory

Abstract: An effort is underway to provide waste inventory estimates that will serve as standard characterization source terms for the various waste management activities. As part of this effort, an evaluation of available information for double-shell tank 241-AW-102 was performed, and a best-basis inventory was established. This work follows the methodology that was established by the standard inventory task.

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streams, and track their movement with tank waste transactions. (These computer models are described in Kupfer et al. 1997, Section 6.1 and in Watrous and Wootan 1997.) Model generated values for radionuclides in any of 177 tanks are reported in the Hanford Defined Waste Rev. 4 model results (Agnew et al. 1997b). The best-basis value for any one analyte may be either a model result or a sample or engineering assessment-based result if available. (No attempt has been made to ratio or normalize model results for all 46 radionuclides when values for measured radionuclides disagree with the model.) For a discussion of typical error between model derived values and sample derived values, see Kupfer et al. 1997, Section 6.1.10.

Table D4-1. Best Basis Inventory Estimates for Nonradioactive Components in Tank 241-AW-102 (May 31, 1997). (2 sheets)

Analyte	Total inventory (kg)	Basis (S, M, or E)	Comment
Al	2,730	E	
Bi	204	E	
Ca	567	E	
Cl	408	E	
TIC as CO ₂	2,820	S	
Cr	212	E	
F	245	E	
Fe	449	E	
Hg	1.15	E	
K	265	E	
La	0.120	M/E	
Mn	84.1	E	
Na	37,500	E	
Ni	68.7	E	
NO ₂	9,260	E	
NO ₃	26,500	E	
OH	17,300	C	charge balance calculation
Pb	54.1	E	
PO ₄	781	E	
Si	3,110	S	