

# STARBUCK ENGINEERING CHANGE NOTICE

Page 1 of 4

1. ECN 169879

Proj. ECN

2. ECN Category (mark one) Supplemental <input checked="" type="checkbox"/> Direct Revision <input type="checkbox"/> Change ECN <input checked="" type="checkbox"/> <i>FCJ</i> Temporary <i>4/16/93</i> <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. L.C. Swanson, Geosciences, H6-06, 6-1438		4. Date 4/09/93	
	5. Project Title/No./Work Order No. Interim-Status Groundwater Monitoring Plan for the Grout Treatment Facility	6. Bldg./Sys./Fac. No. Grout Treatment Facility	7. Impact Level 3Q	
	8. Document Numbers Changed by this ECN (includes sheet no. and rev.) WHC-SD-EN-AP-006, Rev. 0		9. Related ECN No(s). <del>166761</del> <i>FCJ</i> <i>4/16/93</i>	10. Related PO No. N/A

11a. Modification Work <input type="checkbox"/> Yes (fill out Blk. 11b) <input checked="" type="checkbox"/> No (NA Blks. 11b, 11c, 11d)	11b. Work Package No. N/A	11c. Modification Work Complete N/A _____ Cog. Engineer Signature & Date	11d. Restored to Original Condition (Temp. or Standby ECN only) N/A _____ Cog. Engineer Signature & Date
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12. Description of Change  
~~ECN 166761 should be modified in accordance with the three following items.~~ *FCJ* *4/16/93*

1. The paragraph added to page 55, in the section entitled, Installation of New Characterization/Monitoring Wells, should be revised and expanded to:  
 Five downgradient wells are proposed for construction along the GTF point of compliance: two wells in 1992 and three in 1993. The 1992 wells will be spaced 250 ft apart and the 1993 wells 350 ft apart. The wells will continue along the line of compliance that extends southeast and then east of well 299-E25-38, with the exception of well 299-E25-1000 (Figure 3.1).

The line of compliance was originally located 140 ft south of the Waste Management Area (WMA), but has been extended an additional 110 ft to the south to accommodate excavation activities during vault construction. The modified line of compliance is located so that a statistically significant amount of hazardous waste migrating from the WMA will be immediately detected in the proposed wells.

Continued on page 3.

13a. Justification (mark one)	Criteria Change <input type="checkbox"/>	Design Improvement <input type="checkbox"/>	Environmental <input checked="" type="checkbox"/>
As-Found <input type="checkbox"/>	Facilitate Const. <input type="checkbox"/>	Const. Error/Omission <input type="checkbox"/>	Design Error/Omission <input type="checkbox"/>

13b. Justification Details  
 To update the Groundwater Monitoring Plan to document monitoring well placement for the 1993 drilling program. Locations are based on the Part 8 Dangerous Waste Permit (DOE/RL-88-27, Rev. 2), and discussions with Washington State Department of Ecology.

Continued on page 3.

14. Distribution (include name, MSIN, and no. of copies)

R.L. Jackson	H6-06	[1]
J.F. Keller	L4-93	[1]
K.D. Reynolds	H6-06	[1]
L.C. Swanson	H6-06	[3]
W.R. Thackaberry	H4-16	[1]
B.A. Williams	H6-06	[1]



RELEASE STAMP

OFFICIAL RELEASE BY WHC (11)  
 DATE APR 16 1993  
*Station # 12*

9413094-0556

# ENGINEERING CHANGE NOTICE

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1. ECN (use no. from pg. 1)

169879

15. Design Verification Required

Yes  
 No

16. Cost Impact

ENGINEERING

Additional  \$  
Savings  \$

CONSTRUCTION

Additional  \$  
Savings  \$

17. Schedule Impact (days)

Improvement   
Delay

18. Change Impact Review: Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 12. Enter the affected document number in Block 19.

SDD/DD	<input type="checkbox"/>	Seismic/Stress Analysis	<input type="checkbox"/>	Tank Calibration Manual	<input type="checkbox"/>
Functional Design Criteria	<input type="checkbox"/>	Stress/Design Report	<input type="checkbox"/>	Health Physics Procedure	<input type="checkbox"/>
Operating Specification	<input type="checkbox"/>	Interface Control Drawing	<input type="checkbox"/>	Spares Multiple Unit Listing	<input type="checkbox"/>
Criticality Specification	<input type="checkbox"/>	Calibration Procedure	<input type="checkbox"/>	Test Procedures/Specification	<input type="checkbox"/>
Conceptual Design Report	<input type="checkbox"/>	Installation Procedure	<input type="checkbox"/>	Component Index	<input type="checkbox"/>
Equipment Spec.	<input type="checkbox"/>	Maintenance Procedure	<input type="checkbox"/>	ASME Coded Item	<input type="checkbox"/>
Const. Spec.	<input type="checkbox"/>	Engineering Procedure	<input type="checkbox"/>	Human Factor Consideration	<input type="checkbox"/>
Procurement Spec.	<input type="checkbox"/>	Operating Instruction	<input type="checkbox"/>	Computer Software	<input type="checkbox"/>
Vendor Information	<input type="checkbox"/>	Operating Procedure	<input type="checkbox"/>	Electric Circuit Schedule	<input type="checkbox"/>
OM Manual	<input type="checkbox"/>	Operational Safety Requirement	<input type="checkbox"/>	ICRS Procedure	<input type="checkbox"/>
FSAR/SAR	<input type="checkbox"/>	IEFD Drawing	<input type="checkbox"/>	Process Control Manual/Plan	<input type="checkbox"/>
Safety Equipment List	<input type="checkbox"/>	Cell Arrangement Drawing	<input type="checkbox"/>	Process Flow Chart	<input type="checkbox"/>
Radiation Work Permit	<input type="checkbox"/>	Essential Material Specification	<input type="checkbox"/>	Purchase Requisition	<input type="checkbox"/>
Environmental Impact Statement	<input type="checkbox"/>	Fac. Proc. Samp. Schedule	<input type="checkbox"/>		<input type="checkbox"/>
Environmental Report	<input type="checkbox"/>	Inspection Plan	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>
Environmental Permit	<input type="checkbox"/>	Inventory Adjustment Request	<input type="checkbox"/>		<input type="checkbox"/>

19. Other Affected Documents: (NOTE: Documents listed below will not be revised by this ECN.) Signatures below indicate that the signing organization has been notified of other affected documents listed below.

Document Number/Revision	Document Number/Revision	Document Number/Revision
N/A		

20. Approvals

Signature	Date	Signature	Date
OPERATIONS AND ENGINEERING		ARCHITECT-ENGINEER	
Cog Engineer K.D. Reynolds		PE	_____
Cog. Mgr. R.L. Jackson	<i>R. Jackson for</i> 4-16-93	QA	_____
QA W.R. Thackaberry	4-16-93	Safety	_____
Safety	_____	Design	_____
Security	_____	Environ.	_____
Environ.	_____	Other	_____
Projects/Programs	_____		_____
Tank Waste Remediation System	_____		_____
Facilities Operations	_____	DEPARTMENT OF ENERGY	
Restoration & Remediation	_____	Signature or Letter No.	
Operations & Support Services	_____		_____
IRM	_____	ADDITIONAL	_____
Other L.C. Swanson	<i>L.C. Swanson</i> 4/16/93		_____

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Block 12 Continued:

The third well (299-E25-1000) will be situated 250 ft from the proposed eastern most vault, and drilled to basalt for characterization. The borehole will then be backfilled and the well completed as a shallow groundwater monitoring well at the top of the uppermost aquifer in accordance with RCRA requirements.

Characterization data from this well are needed to identify potential pathways of contaminant migration (in case the vaults leak) and to confirm the hydrogeology in this area (there is a facies change between the GTF and B-Pond). It will also provide an upgradient monitoring point now, and in the future an important monitoring point when the groundwater flow direction reverts to the natural eastward direction.

2. Modifications to Table 3.4 on page 55 should contain the 1992 and 1993 wells:

Well Number	Type of Well	Approximate Hanford Coordinates	Approximate Depth to Water (ft)	Approximate Depth of Borehole (ft)	Screen Below Water Table (ft)
299-E25-44	Shallow Monitoring	N39956 W45219	265	282	15
299-E25-45	Shallow Monitoring	N39956 W44969	265	280	15
299-E25-49	Shallow Monitoring	N39956 W44619	265	285	15
299-E25-50	Shallow Monitoring	N39956 W44269	265	285	15
299-E25-1000 <sup>1</sup>	Shallow Monitoring	N40185 W44020	350	285	15

<sup>1</sup> This well will be drilled to the top of basalt and then backfilled and completed as a standard shallow groundwater monitoring well.

3. Another revision of Figure 3.1 (attached), page 50, should replace the one in the groundwater monitoring plan.

Block 13b Continued:

Characterization data from this well are needed to identify potential pathways of contaminant migration (in case the vaults leak) and to confirm the hydrogeology in this area (there is a facies change between the GTF and B-Pond). It will also provide an upgradient monitoring point now, and in the future an important monitoring point when the groundwater flow direction reverts to the natural eastward direction.

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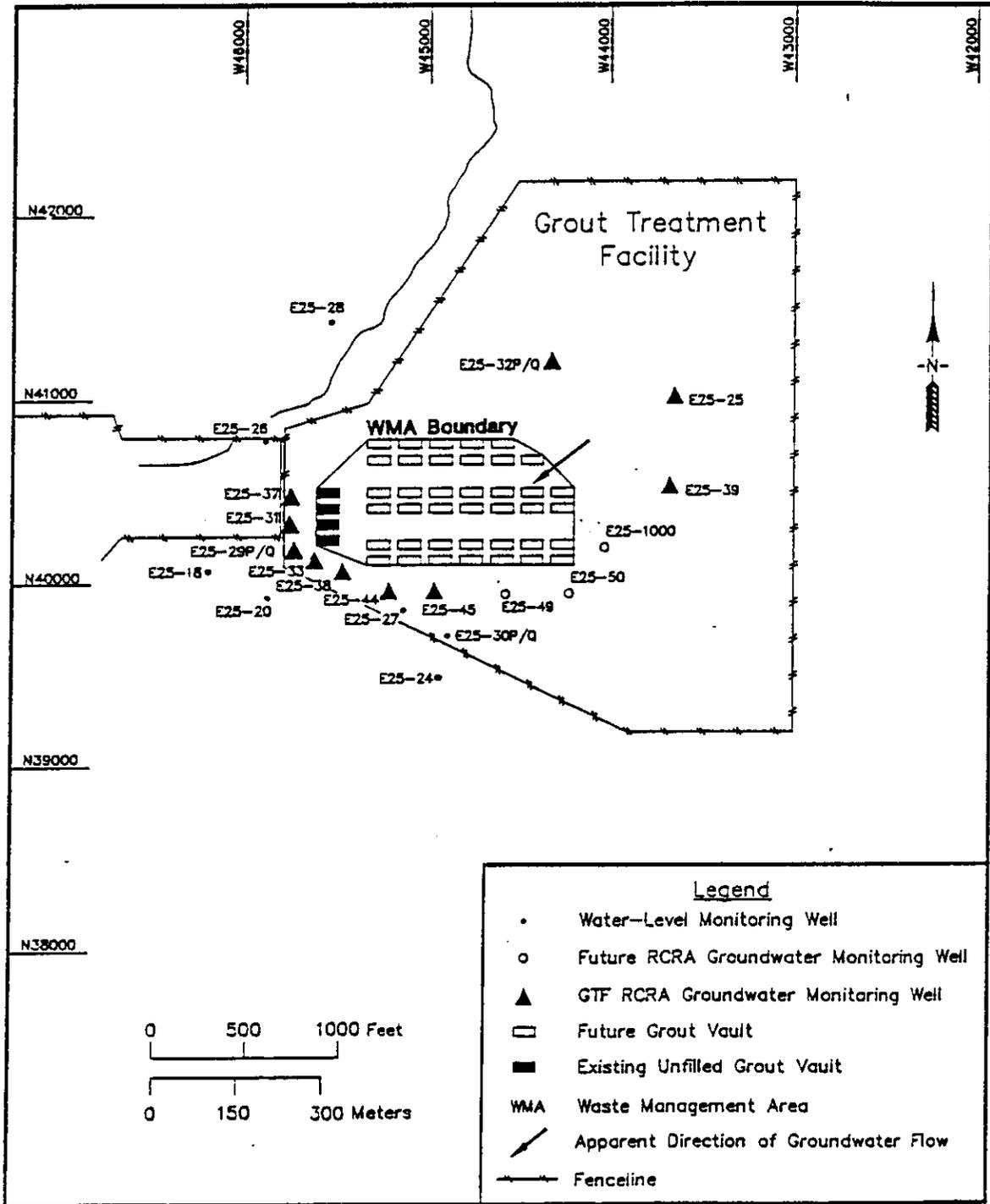


Figure 3.1. Map Showing the Locations of Existing and Planned Monitoring Wells at the Grout Treatment Facility.-

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