START

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ENGINEERING CHANGE NOTICE

Page 1 of 67

1. ECN ~~166200~~

Proj. ECN W-105-215

2. ECN Category (mark one)	Supplemental	[X]	Change ECN	[]	Supersedure	[X]	
Cancel/Void	[X]	Direct Revision	[]	Temporary	[]	Discovery	[]

3. Originator's Name, Organization, MSIN, and Telephone No. R. T. Hallum, KEH, E6-25, 6-7089	4. Date October 14, 1992

5. Project Title/No./Work Order No. W-105, LERF 242-A Evap Cond Interim Retnn Basins	6. Bldg./Sys./Fac. No. 242-A, 242-AL	7. Impact Level 3Q ~~2~~/SC3 DRS 10/19/92
8. Document Number Affected (include rev. and sheet no.) W-105-C3, Rev 0	9. Related ECN No(s). Reference block 12	10. Related PO No. N/A

11a. Modification Work	11b. Work Package Doc. No.	11c. Complete Installation Work	11d. Complete Restoration (Temp. ECN only)
[] Yes (fill out Blk. 11b) [X] No (NA Blks. 11b, 11c, 11d) Unknown	Unknown N/A	N/A Cog. Engineer Signature & Date	N/A Cog. Engineer Signature & Date

12. Description of Change

Cancel ECN W-105-201 in its entirety. RTH/EL 11/2/92 SC-3

A) Section 15493

1) Replace Pipe Code M-9 with Pipe Code shown on pages 4 and 5.

2) Revise Approval Data List sheets in accordance with page 6.

3) Delete control valve data sheets Y-101 (tag number MOV-41-1) and Y-102 (tag number MOV-43-1).

4) Revise Vendor Information List sheet in accordance with Page 7.

(Continued on Page 3)

13a. Justification (mark one)	Criteria Change	[X]	Environmental	[]	Facilitate Const.	[X]	
Design Error/Omission	[]	Design Improvement	[X]	As-Found	[]	Const. Error/Omission	[]

13b. Justification Details

A1) M-9 Pipe Code changed to support the down sizing of the leachate pump (LOI 119, WHC letter 9256075).
A2) Pump for leachate system has been specified (ECN W-105-209). Approval data is not required.
A3 & A4) Control valves are not required. MOV-41-1 is not required. Basin 41 has been deleted from scope. MOV-43-1 has been deleted by LOI 115 (WHC letter 9255718).

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

KEH DISTRIBUTION		J. J. Huston	S1-54
Const Doc Cntl	E2-50	M. N. Islam	R3-08
WHC DISTRIBUTION		D. R. Shreve	R3-30
Project Files	R1-28	S. J. Skurla	H4-57
S. A. Burris	T1-30	L. R. Tollbom (PE)	R3-30
J. K. Epperley	R1-29	M. A. White	R1-43
E. R. Hamm	S4-65	R. B. Wurz	S5-14
STA.6	T2-03	DOE/A. G. Lassila	A5-10
STA.10	A3-07		
Lupe Garza	L6-76		

RELEASE STAMP

OFFICIAL RELEASE BY WHC 5

DATE NOV 04 1992

Sta. 4

A-7900-013-1 (11/88)

ENGINEERING CHANGE NOTICE

1. ECN (use no. from pg. 1): W-105-215

15. Design Verification Required	16. Cost Impact						17. Schedule Impact (days)	
	ENGINEERING			CONSTRUCTION				
[] Yes	Additional	[X]	$1,000	Additional	[X]	$10 K	Improvement	[] N/A
[X] No	Savings	[]	$	Savings	[]	$	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	[]	Seismic/Stress Analysis	[]	Tank Calibration Manual	[]
Functional Design Criteria	[]	Stress/Design Report	[]	Health Physics Procedure	[]
Operating Specification	[]	Interface Control Drawing	[]	Spares Multiple Unit Listing	[]
Criticality Specification	[]	Calibration Procedure	[]	Test Procedures/Specification	[]
Conceptual Design Report	[]	Installation Procedure	[]	Component Index	[]
Equipment Spec.	[]	Maintenance Procedure	[]	ASME Coded Item	[]
Const. Spec.	[]	Engineering Procedure	[]	Human Factor Consideration	[]
Procurement Spec.	[]	Operating Instruction	[]	Computer Software	[]
Vendor Information	[]	Operating Procedure	[]	Electric Circuit Schedule	[]
OM Manual	[]	Operational Safety Requirement	[]	ICRS Procedure	[]
FSAR/SAR	[]	IEFD Drawing	[]	Process Control Manual/Plan	[]
Safety Equipment List	[]	Cell Arrangement Drawing	[]	Process Flow Chart	[]
Radiation Work Permit	[]	Essential Material Specification	[]	Purchase Requisition	[]
Environmental Impact Statement	[]	Fac. Proc. Samp. Schedule	[]		[]
Environmental Report	[]	Inspection Plan	[]		[]
Environmental Permit	[]	Inventory Adjustment Request	[]		[]

N/A

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

20. Approvals

	Signature	Date		Signature	Date
OPERATIONS AND ENGINEERING			ARCHITECT/ENGINEER		
Cog./Project Engineer	M Teller	10-22-92	PE	[illegible]	10-15-92
Cog./Project Engr. Mgr.	M Teller for [illegible]	10-22-92	QA	[illegible]	10/15/92
QA	[illegible]	10-[illegible]-92	Safety	D Lundgren	10-14-92
Safety			Design	RT Hallen	10/14/92
Security			Other		
Proj. Prog./Dept. Mgr.			Specs	[illegible]	10-14-92
Def. React. Div.			Envir	R Hollenbeck	11-2-92
Chem. Proc. Div.					
Def. Wst. Mgmt. Div.			DEPARTMENT OF ENERGY		
Adv. React. Dev. Div.					
Proj. Dept.					
Environ. Div.			ADDITIONAL		
IRM Dept.					
Facility Rep. (Ops.)					
Other	Darell R Shreve WHC/CE	10-22-92			
	[illegible]	10/30/92			
	[illegible]	10/30/92			

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B) Related ECNs

1) ECN W-105-42
   - Page 40 of ECN W-105-42 is superseded by Page 4 and 5 of this ECN.
   - Delete Pages 47 (modification to Data Sheet W-101) and 48 (modification to Data Sheet Y-102) from ECN W-105-42. Data Sheets Y-101 and Y-102 from Section 15493 have been deleted by this ECN.

2) ECN W-105-83
   - Page 8 of ECN W-105-83 is superseded by Page 4 and 5 of this ECN.

3) ECN W-105-90
   - Delete Page 13, Rupture Disk Data Sheet. Safety relief valve added by ECN W-105-110 replaced rupture disk.

4) ECN W-105-110
   - Page 13 of ECN W-105-110 is superseded by Page 4 and 5 of this ECN.

5) ECN W-105-191
   - Page 14 of ECN W-105-191 is superseded by Page 4 and 5 of this ECN.

6) ECN W-105-201
   - Void ECN W-105-201. Data Sheet Y-102 has been deleted by this ECN.

PIPE CODE M-9		
Service	Max Operating Pressure	Max Operating Temp
LCH (leachate) VE (vent) PC (process) EHTR (encasement hydro test riser) DR (drain) HTR (hydro test riser)	60 psig 100 psig 100 psig 60 psig 60 psig 100 psig	100°F 120°F 120°F 120°F 120°F 120°F
Sizes	1/2", 1" (LCH service only)	1/4", 3/4" through 8" (remaining services)
Pipe	Stainless steel, ASTM A 312, Grade TP 304L, welded or seamless.	
Wall Thickness	Schedule 80S	Schedule 40S
Fittings	Class 3000 threaded, ASTM A 182 GR F 304, in accordance with ASME B16.11.	Stainless steel; ASTM A 182 GRF 304L, socket-welding (1/4" - 1-1/2") in accordance with ANSI B16.11 pressure class 3000 and ASTM A 403 WP 304L, butt-welding (2" to 8") in accordance with ANSI B16.9 wall thickness to match pipe.
Unions	Class 3000 threaded, 304 stainless steel	None
Nipples	Same schedule and material as pipe, close or butt not permitted.	None
Couplings	Class 3000 threaded, ASTM A 182 GR F 304, in accordance with ASME B16.11.	None
Flanges	Class 150 forged stainless steel, ASTM A 182, Grade F 304L, flat face socket welding or slip-on (1/2" to 3") or raised face weld neck (4" to 8") flat face blind flange (1/2" to 3") raised face blind flange (4" to 16") in accordance with ASME B16.5.	
Bolting	Alloy steel studs, ASTM A 193, Grade B8, and heavy hex nuts, ASTM A 194, Grade 8F.	
Gaskets	3/16" full face EPDM with a hardness of 50-70 durometer on the shore "A" scale.	
Valves		

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Rev. W-105-C3, 15493	Sh.	Rev. 0
Prep. By RT Hallum	Ckd By GK Goolsby	

9 0 1 1 9 0 4 3 7 3 6

PIPE CODE M-9	
Ball	1/2" to 8" similar to Pittsburgh Brass Manufacturing Co. SP Series. Body shall be 316 stainless steel. Seats and seals shall be manufacturer's standard. 1/2" through 1-1/2" shall be socket weld. 2" through 8" shall be either buttweld or flanged as shown on Drawings.
Multiport	1/2" to 4" similar to Pittsburgh Brass Manufacturing Co. MP-H-12 through 20-FI5-2/POCO-H6 with electric reversible actuator ER-40 for 1/2" and 3/4"; ER-60 for 1"and 1-1/4"; ER-100 for 1-1/2"; ER150 for 2" and 3"; ER190 for 4".
Needle Valve	Integral bonnet needle valve, angle body style, connections to be female 1/2" NPT, orifice size 0.375", flow coefficient (Cv) from 0.09 to 1.80, and wetted metallic parts shall be 316 stainless steel. Valve is similar to Whitey needle valve model SS-18RF8-A or approved equal.

ECN No. W-105-215	Page 5/57*	
Ref. ~~Dwg.~~ W-105-C3, 15493	Ch.	Rev. 0
Prep. By RT Hallund	Ckd. By GL Goans	

7 5 7 1 1 4 0 8 1 1 5 6

Project No: W-105-C3
Project Title: RETENTION BASIN LINERS
Specification Section: 15493

APPROVAL DATA LIST
("X" Indicates Required Data)

1 EPN IDENTIFICATION	2 DESCRIPTION (DELETE)	3 REFERENCE DRAWING	4 SPECIFICATION PARAGRAPH	5 DATA: Dimensional Drawings	Equipment Weights	Specifications	Material Description	Performance Data	Circuit or Control Diagrams	Data Sheets	Illustrative Cuts	Installation Instructions	6 REMARKS
MOV-41-1 and MOV-43-1	Control Valve and Accessories	H-2-79612	2.1.1.1		X	X			X		X		X
242AL-P41 through 242AL-P44	Pump, Leachate	H-2-79620	2.2	X		X		X	X		X		
242AL-P1 through 242AL-P4	Pump, Transfer	H-2-79620	2.2	X		X		X	X		X		
	Hand Operated Valves			X			X				X		

ECN No. W-105-215 | Page 6 of 7 | Ref. Dwg. W-105-C3 | Sh. — | Rev. 0 | Prep. By RT Hallum | Ckd. By GK Gonsay

Kem-1986 00 (03/09)

W105C3.SP.902

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W-105-C3

W105C3.SP.902

Project No W-105-C3

Project Title RETENTION BASIN LINERS

Specification Section 15493

VENDOR INFORMATION LIST

("X" Indicates Required Data)

1 EPN IDENTIFICATION	2 DESCRIPTION	3 REFERENCE DRAWING	4 SPECIFICATION PARAGRAPH	5 VENDOR INFORMATION (VI) Dimensional Drawings	Equipment Weights	Specifications	Certified Test Data	Circuit or Control Diagram	Instructions: Installation	Operation	Maintenance	Spare Parts List	Data Sheets	Illustrative Cuts
	DELETE													
MOV-41-1 and MOV-43-1	Control Valve & Accessories	H-2-78612	2.1.1.1	X	X	X		X	X	X	X	X	X	X
242AL-P41 through 242AL-P44	Pump, Leachate	H-2-78620	2.2	X	X	X		X	X	X	X	X	X	X
242AL-P1 through 242AL-P4	Pump, Transfer	H-2-78620	2.2	X	X	X		X	X	X	X	X	X	X
	Hand Operated Valves			X					X	X	X	X		X

END OF SECTION 15493 - 36

W-105-C3

ECN No. W-105-215	Page 7/9
Ref. Dwg. W-105-C3	Ch. — Rev. 0
Prep. By RT Hallum	Ckd. By GK Gourley

KL-.985 00 (03/89)

* TOTAL PAGE #'S ON PGS. 4, 5 & 6 CHANGED BY D.R. SHREVE, THIS DATE. DRS 10-21-92