6527 U-003-307 .41

ENGINEERING FILE MAINTAINED BY THE FEMP CADD DEPARTMENT, JULY 11, 1958 - (USED AS A REFERENCE IN OU 1 RI REPORT)

07/11/58

20
DRAWINGS

6527

BURN PIT CORRESPONDENCE

DATE	TITLE
Sept. 2. 1953	Results of First Use of Scap Pit No. 1

PROJECT FILES

PROJ. NO.	CP NO.	TITLE	DATA LOCATED PF	DATA LOCATED CP	REMARKS
G-110		AREAS ALLOCATED FOR DUMPING IN SCRAP PIT			
G-169	CP-59-83	(6) SAMPLING WELLS NEAR PIT		X	
G-471		ELECTRIC LIGHT AT SOUTH-WEST CORNER - PIT #4			
G-496	CP-68-13	NEW CHEMICAL WASTE PIT PIT #5	X	X	
G-574		STUDY METHODS OF COVERING PIT #3			
G-585	CP-71-10	MATERIAL HANDLING EQUIPMENT FOR COVERING SCRAP PIT #3	X	X	
G-613		DRAG LINE FOR COVERING PIT #3			
G-617		IMPROVED DISCHARGE TO PIT #5			CANCELLED
G-635	CP-74-5	WET CHEMICAL PIT #6 A.T.F.		X	
G-644	18-19	FILTER CAKE DISPOSAL PIT #5		X	
G-664	CP-77-2	STORAGE PIT FOR DRY RESIDUES		X	
G-700		FUSRAP PIT ESTIMATES			
G-704	CP-82-11	DUST CONTROL AT STORAGE PITS	X	X	
8-23	CP-56-24	SCRAP PIT #2		X	
8-38		DESIGN & ESTIMATE COST OF ERECTING GUARD RAILS AT NEW SCRAP PIT			
8-44		INVESTIGATE LEAK IN NORTH-WEST CORNER ADJACENT TO DECANT LINE AT CHEMICAL PIT			
8-47	CP-58-40	NEW SCRAP PIT #3	X	X	
8-48		DRAWINGS FOR PIT DISPOSAL AREA & TRENCH PIPING K-65 FLOW DIAGRAM			
8-65	CP-59-86	NEW DRY CHEMICAL SCRAP PIT #4		X	
8-71		NEW SCRAP PIT SOP DRAWING			
8-77		DISPOSAL PLANT 8 RESIDUES			
8-275		REPLACEMENT OF PUMPS AT PIT #3			
8-289		REPLACEMENT OF MAGNETIC FLOWMETER AT PIT #3			
8-338		CLEARWELL ACID FEED SYSTEM PIT #5			
8-340	40-12	STORAGE PITS COVER STUDY		X	
8-341	40-13	SOLID WASTE DISPOSAL (SSWPS)		X	
21-16	CP-58-27	EXTENSION OF FENCE AROUND SCRAP PIT AREA		X	
	40-86302	PIT #4 DIRT COVER		X	
	40-86303	PIT #4 RUNOFF CONTROL		X	
21-28		INVESIGATION OF EROSION PROBLEM CREATED BY PADDY'S RUN CREEK NEAR WASTE DISPOSAL PIT #3		X	
21-60		DIVERSION FACILITIES PIT #5		X	

DRAWING SHEET INDEX

DRAWING NO.	FILENAME	TITLE
21A-5500-G-00248	cru1ab003.dgn	WASTE PITS LOCATION PLAN SCALE:1"=60'
21A-5500-G-00249	cru1xs004.dgn	WASTE PIT CROSS SECTIONS SCALE:1"=60'
21A-5500-G-00250	cru1tp002.dgn	1951 TOPOGRAPHICAL MAP SCALE:1"=60'
21A-5500-G-00251	cru1ab005.dgn	WASTE PIT NO. 1 HISTORICAL CONFIGURATION - SCALE:1"=30'
21A-5500-G-00252	cru1ab006.dgn	WASTE PIT NO. 2 HISTORICAL CONFIGURATION - SCALE:1"=30'
21A-5500-G-00253	cru1ab007.dgn	WASTE PIT NO. 3 AND CLEARWELL HISTORICAL CONFIGURATION SCALE:1"=40'
21A-5500-G-00255	cru1ab008.dgn	WASTE PIT NO. 4 AND BURNPIT HISTORICAL CONFIGURATION SCALE:1"=30'
21A-5500-G-00256	cru1ab009.dgn	WASTE PIT NO. 5 HISTORICAL CONFIGURATION - SCALE:1"=40'
21A-5500-G-00257	cru1ab010.dgn	WASTE PIT NO. 6 HISTORICAL CONFIGURATION - SCALE:1"=30'
21A-5500-X-00260	index.dgn	WASTE PITS INDEX SHEET

BURN PIT CORRESPONDENCE

DATE	TITLE
June 17. 1959	Completion Report - Uranium Content of Burn Pit Residues - PP5-5-2
July 15. 1964	Uranium Content of Burn Pit Residues
Aug. 21. 1964	Uranium Content of Burn Pit Residues
Dec. 14. 1964	Scrap Materials going to Burn Pit
July 1. 1965	Memo "Discards to Burn Pit and from Wet Scrubbers - FY 1965"
Nov. 22. 1965	Uranium Content of Burn Pit Residues - Project P48000-2
Jan. 13. 1966	Uranium Content of Burn Pit Residues
Jan. 21. 1966	Uranium Content of Burn Pit Residues - Project P48000-2
April 5. 1966	Uranium Content of Burn Pit Residues - Project P48000-2
July 5. 1966	Uranium Content of Burn Pit Residues - Project P48000-2
Aug. 15. 1967	Review of NMC Data on the Recovery of Burn Pit and Incinerator Residues
Aug. 22. 1967	Uranium Content of Burn Pit Residues - Project P48000-2
Sept. 6. 1967	Uranium Content of Burn Pit Residues
Sept. 7. 1967	Uranium Content of Burn Pit Residues - Project P48000-2
Oct. 10. 1967	Uranium Content of Burn Pit Residues - Project P48000-2
Nov. 27. 1967	Task Force on Open Burning of Refuse
April 23. 1968	Uranium Content of Burn Pit Residues - Project P48000-2

WASTE PIT DRAWINGS

DRAWING NO.-REV.NO	DWG DATE	PIT NO.	TITLE	CP NO.	PROJECT NUMBER
08C-5500-G-00863-Rev1	08/19/53	1	Retention Pit for Scrap Plant Dump		
08C-5500-G-00863-Rev2	No Date	1	Scrap Dump		
08C-5500-G-00864-Rev0	11/25/53	1	Scrap Plant Dump As-Built		
08X-5500-G-01070-Rev2	10/31/55	1&2	New Scrap Pit and Addition to Existing Dump for Scrap Plant	56-24	8-23
08X-5500-G-01109-Rev2	08/31/56	2	New Scrap Pit and Addition to Existing Pit for Scrap Plant	56-24	8-23
08C-5500-G-01110-Rev1	09/04/56	1	New Dike for Scrap Pit Plan and Sections	56-24	8-23
08C-5500-P-01132-Rev1	04/02/57	2	U.A.P. Process Effluent Waste Line - Details	56-37	8-28
08C-5500-P-01131	03/26/57	2	U.A.P. Process Effluent Waste Line - West Section	56-37	8-28
08C-5500-G-01161	09/06/57	1&2	Pit Waste Disposal Layout		G-110
08C-5500-G-01167-Rev0	02/12/58	1&2	Pit Disposal Area		8-48
08C-5500-G-01195-Rev0	07/10/58	3&CW	K-65 Area - Proposed Scrap Pit #3 - Location Plan	58-40	8-47
08X-5500-G-01196-Rev6	07/16/58	3&CW	K-65 Area - Scrap Pit #3 Plan and Details	58-40	8-47
08C-5500-S-01197-Rev0	08/05/58	3&CW	Scrap Pit #3 Weir Plan and Details	58-40	8-47
08C-5500-P-01214-Rev0	09/11/56	1,2,3, CW	General Sump Waste Disposal Layout, Plan	58-40	8-47
08C-5500-P-01299-Rev1	07/24/59	1,2,3, 4, CW	Scrap Pit Area - Pit Disposal Area - Plan		8-71
08C-5500-G-01302-Rev0	09/16/59	4	Topography of Proposed Dry Chemical Pit Area	59-86	8-65
08X-5500-G-01304-Rev2	02/26/60	4	Dry Chemical Scrap Pit #4 - Plan	59-86	8-65
08X-5500-G-01305-Rev2	10/16/59	4	Dry Chemical Scrap Pit Sections and Details	59-86	8-65
08X-5500-G-01306-Rev2	03/01/60	4	Dry Chemical Scrap Pit Plan and Profile	59-86	8-65
08X-5500-G-01303-Rev1	10/09/59	4	Proposed Additional Chemical Scrap Pit Plan	59-86	8-65
21A-1450-G-00081-Rev5	12/04/52	1	Plan, Profile and Details of 12' Access Road to Scrap Plant Dump		
21A-5500-G-00096-Rev2	07/22/54	1	Scrap Plant - Additional Paved Area Arrangement	54-70	
21A-5500-G-00101	05/09/58	3	Scrap Pit #3 - Relocation and Additions to Outer Boundary Fence - Location Plan	58-27	21-16
21A-5500-G-00196-Rev1	05/22/68	5	Pit Layout and Details	68-13	G-496
21A-5500-G-00197-Rev1	05/20/58	5	Cross Sections - Sht. 1	68-13	G-496
21A-5500-G-00198-Rev1	05/21/68	5	Cross Sections - Sht. 2	68-13	G-496
21A-5500-G-00199-Rev1	05/22/68	5	Cross Sections - Sht. 3	68-13	G-496
21A-5500-G-00200-Rev2	04/22/68	5	Effluent Tower	68-13	G-496
21A-5500-G-00201-Rev1	05/29/68	5	Access Road	68-13	G-496
21A-5500-G-00202-Rev1	06/05/68	5	Outer Security Fence	68-13	G-496
21A-5500-P-00203-Rev3	05/10/68	5	Pit #5 Piping		
21A-5500-G-00222-Rev2	04/26/77	6	Storage Pit for Dry Residue Pit Layout and Details	77-2	G-664
21A-5500-G-00225-Rev1	04/14/78	6	Cross Sections	77-2	G-664
21X-5500-E-00243	07/03/63	All	Test Well Installation Electrical Plan	63-12	G-257
21A-5500-M-00258	08/29/79	6	Pit #6 Liner Layout and Details	77-2	G-664
21A-5500-M-00259-Rev0	08/07/68	5	Royal Seal Lining of Wet Chemical Scrap Pit #5	68-13	G-496
40A-1900-G-00021-Rev0	2/88	4	Cover for Pit #4 Site Layout Plan		40-87601
40A-1900-G-00022-Rev0	2/88	4	Cover for Pit #4 Grading and Drainage Plant - Sht. 1		40-87601

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.

NOTE: FERMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS ± 1/16
ANGLES ± 0° - 30'
DECIMALS
.X ± 0.1
.XX ± 0.03
.XXX ± 0.005
.XXXX ± 0.0030
DRILL RELEASE DATE

APPROVALS

CIVIL & STR.		SAFETY ENG.	
ELECTRICAL		MAINTENANCE	
		Q.A.	
ENGINEER		FIRE PROTECT.	
INSTRUMENT		WASTE MANAGE	
MECHANICAL		SECURITY	
		CRU	
CHECKED			
APPROVED			

FERNALD ENVIRONMENTAL RESTORATION MANAGEMENT CORPORATION
FERMCO
Fernald
Environmental Management Project
U.S. DEPARTMENT OF ENERGY

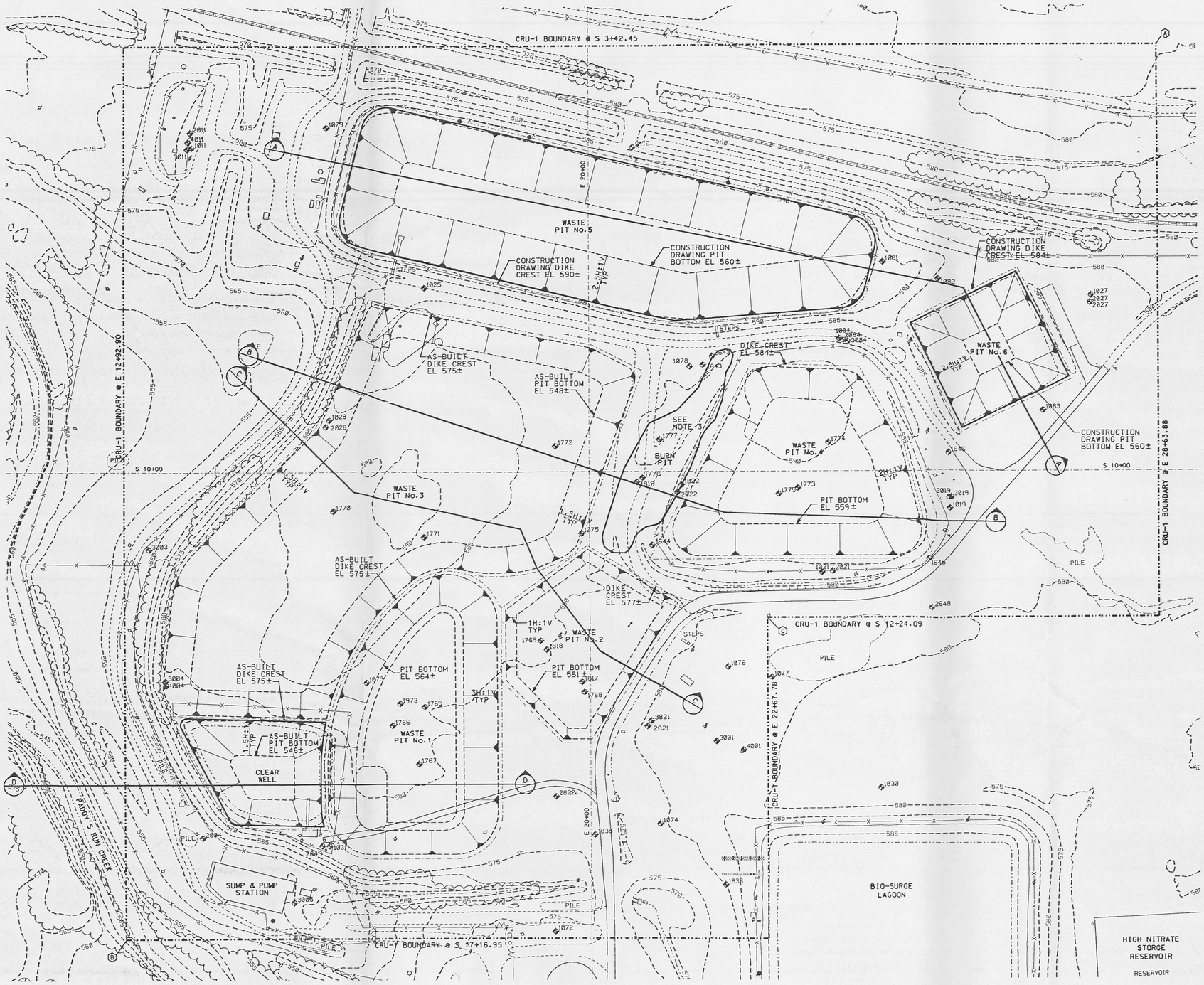
WASTE PITS
HISTORICAL CONFIGURATION
INDEX SHEET

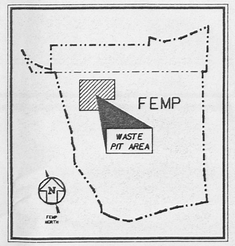
RES #2080
DATE Aug. 5, 1993
DRAWN JBW
21A-5500-X-00260 | 0

FILE NAME: /res2080/index.dgn

index.m(4817.ws2) jim@ws2. Fri Oct 29 09:15:58 EDT 1993

6527





VICINITY MAP

NOTES

1. EXISTING CONDITIONS SHOWN ON THIS DRAWING WERE PREPARED FROM FEMP SITE PROVIDED DATA FROM THE DOCUMENTS LISTED BELOW.

   EXISTING SITE DATA SOURCE (IN PLANT FILES)
   AERIAL TOPOGRAPHY, 1992
   FEMP CADD GRID/UTILITY DRAWINGS
   FEMP CONTRACTOR PROJECT DESIGN DOCUMENTS

2. THE GEOMETRIC CONFIGURATIONS, THE LINER THICKNESSES, AND THE BOTTOM ELEVATIONS OF THE WASTE PITS WERE DETERMINED FROM THE BEST AVAILABLE DATA AT THIS TIME. THIS DATA WAS GATHERED FROM CONSTRUCTION, AS-BUILT, SURVEY, AND FEASIBILITY STUDY DRAWINGS (1/31/92, REV 1), AND FROM THE EXISTING PLANT ENGINEERING FILES.
   THE DIKE CREST SHOWN AROUND THE WASTE PITS REPRESENTS THOSE BUILT AT THE TIME OF CONSTRUCTION. MOST OF THE DIKES HAVE BEEN BURIED WITH COVER MATERIAL OF DIFFERENT THICKNESSES.

3. THE GEOMETRIC CONFIGURATION OF THE BURN PIT HAS BEEN DETERMINED FROM THE SITE AS-BUILT SURVEY OF THE BURN PIT DIKE. DEPTH AND SLOPES OF THE BURN PIT ARE NOT KNOWN.

CRU-1 COORDINATES POINTS

	FEMP		STATE PLANAR (NAD83)	
	EAST	SOUTH	EASTING	NORTHING
(A)	E 28+63.88	S 3+42.45	1379432.00	482364.00
(B)	E 12+92.90	S 17+16.95	1377824.00	481033.00
(C)	E 22+67.78	S 12+24.09	1378812.00	481499.00

LEGEND

- GLACIAL OVERBURDEN
- CLAY LINER
- FILL SOIL
- SAND AND/OR GRAVEL
- SOIL MIXED WITH WASTE
- WASTE
- PIT OUTLINE COVERED
- PIT OUTLINE DIKE
- PIT OUTLINE BOTTOM
- SLOPE
- MAJOR CONTOUR
- FENCE
- RAILROAD
- PAVED ROAD
- GRAVEL ROAD
- POST INDICATOR VALVE (PIV)
- FIRE HYDRANT (FH)
- MANHOLE (MH)
- CATCH BASIN (CB)
- POWER POLE
- VALVE BOX
- MONITORING WELL
- SIGN

DO NOT SCALE REDUCED DRAWING

NOTE:
FOR CROSS - SECTIONS SEE 21A-5500-G-00249

0 30 60 150 300
SCALE IN FEET

1992 PHOTOGRAMMETRY
PREPARED BY: WOOLPERT CONSULTANTS

WASTE PITS GEOMETRIC CONFIGURATION
PREPARED BY: PARSONS

NO.	REVISIONS	DATE	DWN.	BY	APPD.	NO.	REVISIONS	DATE	DWN.	BY	APPD.	REF. DWG. NO.
												75X-5900-G-000239
												75X-5900-G-000247
												21A-5500-G-000249

NOTE:
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS ± 1/16
ANGLES ± 0° - 30'
DECIMALS
.X ± 0.1
.XX ± 0.03
.XXX ± 0.005
.XXXX ± 0.0050
ORIG. RELEASE DATE

APPROVALS

CIVIL & STR.		SAFETY ENG.	
ELECTRICAL		MAINTENANCE	
ENGINEER		Q.A.	
INSTRUMENT		FIRE PROTECT.	
MECHANICAL		WASTE MANAGE	
		SECURITY	
		CRU	
CHECKED			
APPROVED			

FERNALD ENVIRONMENTAL RESTORATION MANAGEMENT CORPORATION
FERMCO
Fernald Environmental Management Project
U.S. DEPARTMENT OF ENERGY

CRU-1 WASTE PITS AREA
CERCLA/RCRA UNIT ONE AREA
WASTE PITS LOCATION PLAN
SCALE: 1"=60'-0"

RES 2080
DATE 11 FEB 93
DRAWN M. E. TILLMAN
21A-5500-G-00248 0

FILE NAME: /res2080/cru1db003.dgn

cru1db003.dgn (4800.ws2) jim@wsz, Fri Oct 29 07:36:11 EDT 1993

6527

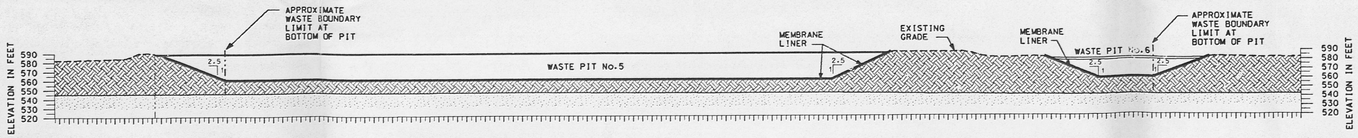
1. EXISTING CONDITIONS SHOWN ON THIS DRAWING WERE PREPARED FROM FEMP SITE PROVIDED DATA FROM THE DOCUMENTS LISTED BELOW.

   EXISTING SITE DATA SOURCE (IN PLANT FILES)
   AERIAL TOPOGRAPHY, 1992
   FEMP CADD GRID/UTILITY DRAWINGS
   FEMP CONTRACTOR PROJECT DESIGN DOCUMENTS

2. 2H:1V IS MINIMUM SLOPE PERMISSIBLE FOR SAFE EXCAVATION OVER AN EXTENDED TIME PERIOD. ACTUAL SLOPE WILL VARY DEPENDENT ON SLOPE CONDITIONS ENCOUNTERED (TYPICAL TO ALL PITS).

3. THE GEOMETRIC CONFIGURATIONS, THE LINER THICKNESSES, AND THE BOTTOM ELEVATIONS OF THE WASTE PITS WERE DETERMINED FROM THE BEST AVAILABLE DATA AT THIS TIME. THIS DATA WAS GATHERED FROM CONSTRUCTION, AS-BUILT, SURVEY, AND FEASIBILITY STUDY DRAWINGS (REV 1), ALONG WITH ENGINEERING FILES AND THE 1992 AERIAL TOPOGRAPHY.

4. BECAUSE OF INADEQUATE INFORMATION, THE BURN PIT AREA LOCATED BETWEEN WASTE PITS 3 AND 4 IS SHOWN AS SOIL MIXED WITH WASTE. SHAPE DENOTES GENERALIZED CONFIGURATION.



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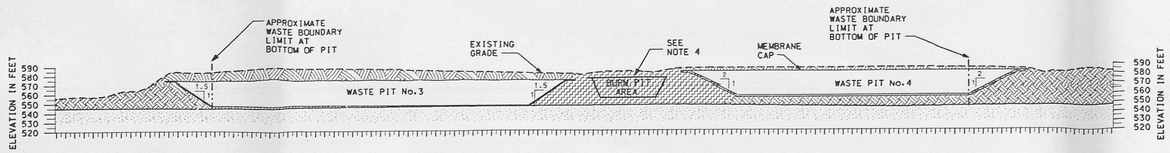
21A-5500-G-00248



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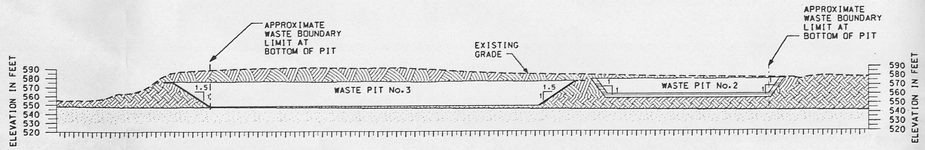

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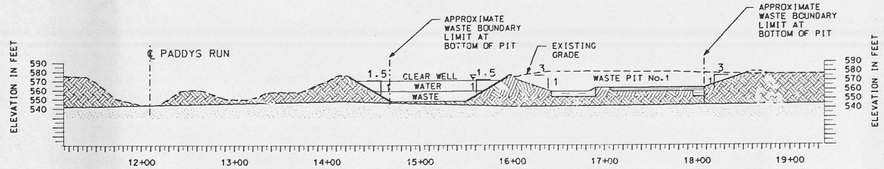

SECTION D
SCALE: 1"=60'
21A-5500-G-00248

LEGEND

- GLACIAL OVERBURDEN
- CLAY LINER
- FILL SOIL
- SAND AND/OR GRAVEL
- SOIL MIXED WITH WASTE
- WASTE

DO NOT SCALE REDUCED DRAWING

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
										21A-5500-G-00248

NOTE:
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TOLERANCES ARE
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ANGLES ± 0° - 30'
DECIMALS
.X ± 0.1
.XX ± 0.03
.XXX ± 0.005
.XXXX ± 0.0005
ORIG. RELEASE DATE

APPROVALS				
			SAFETY ENG.	
CIVIL & STR.			MAINTENANCE	
ELECTRICAL			Q.A.	
ENGINEER			FIRE PROTECT.	
INSTRUMENT			WASTE MANAGE.	
MECHANICAL			SECURITY	
			CRU	
CHECKED	JEP			
APPROVED	JE Grant	11/1/93		

FERNALD ENVIRONMENTAL RESTORATION MANAGEMENT CORPORATION
FERMCO
Fernald
Environmental Management Project
U.S. DEPARTMENT OF ENERGY

CRU-1 WASTE PITS AREA
CERCLA/RCRA UNIT ONE AREA
WASTE PIT CROSS SECTIONS
SCALE: 1"=60' 3

RES 2080	
DATE 22 FEB 93	21A-5500-G-00249 0
DRAWN M.G. TILLMAN	

FILE NAME: /rsa2080/CRU1XS004.DGN

ru1xs004.m(4814.ws2) jim@ws2. Fri Oct 29 09:04:19 EDT 1993

OCT 6 '93

6527

DO NOT SCALE REDUCED DRAWING

NOTE:
THIS TOPOGRAPHICAL MAP WAS DIGITIZED FROM GORDON, RUSSEL AND NEAL CO. DRAWING DATED APRIL 26, 1951. DRAWING NO. IS 21X-3400-G-00045

0 30 60 150 300
SCALE IN FEET

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.

REF. DWG. NO.: 21X-3400-G-00045

NOTE:
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TOLERANCES ARE
FRACTIONS ± 1/16
ANGLES ± 0° - 30'
DECIMALS
.X ± 0.1
.XX ± 0.03
.XXX ± 0.005
.XXXX ± 0.0005
DWG. RELEASE DATE

APPROVALS			
CIVIL & STR.		SAFETY ENG.	
ELECTRICAL		MAINTENANCE	
ENGINEER		Q.A.	
INSTRUMENT		FIRE PROTECT.	
MECHANICAL		WASTE MANAGE.	
		SECURITY	
		CRU	
CHECKED	DAP		
APPROVED			

FERNALD ENVIRONMENTAL RESTORATION MANAGEMENT CORPORATION
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Environmental Management Project
U.S. DEPARTMENT OF ENERGY

CRU-1 WASTE PITS AREA

CERCLA/RCRA UNIT ONE AREA
1951 TOPOGRAPHICAL MAP
SCALE: 1"=60'-0"

RES 2080
DATE 25 FEB 93
DRAWN M.E. TILLMAN

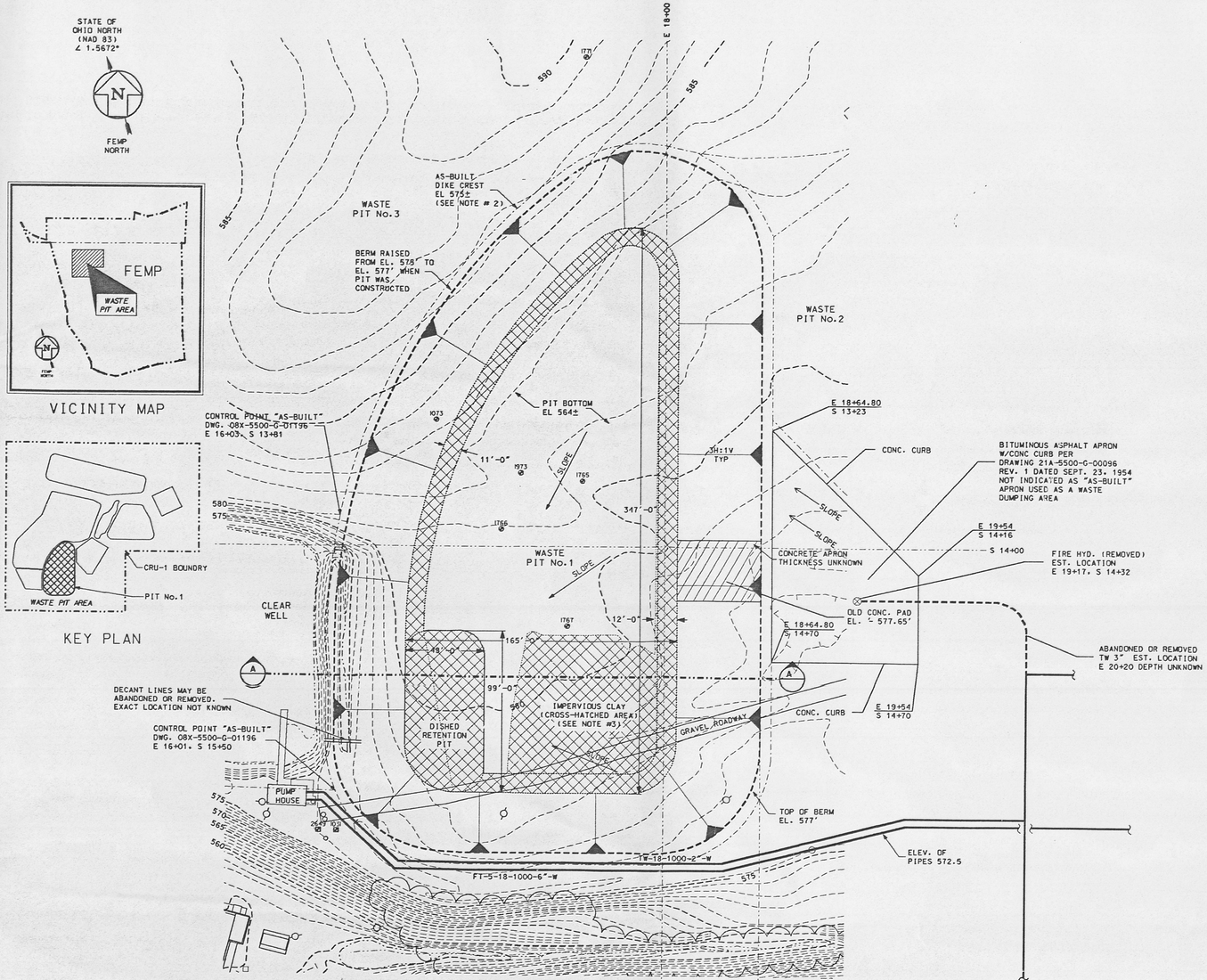
21A-5500-G-00250 | 0

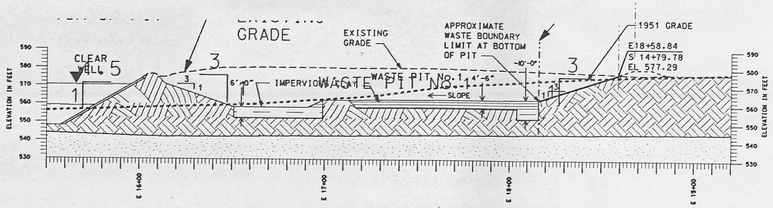
FILE NAME: /res2080/CRU1TP002.DGN

OCT 6 '94

crulp002.m(4815.ws2) jim@ws2. Fri Oct 29 09:10:17 EDT 1993

6527





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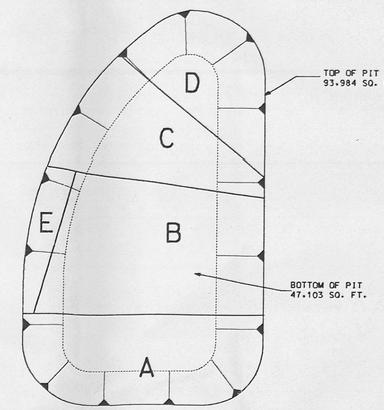


PIT 1

CONSTRUCTED: 1953 COST: EST. $24,600.00

IN USE: 1953 - MID 1959

CONSTRUCTION: PIT 1 WAS ORIGINALLY AN "IN-GROUND" FACILITY WHICH WAS CONSTRUCTED BY DIGGING A LARGE BASIN INTO THE EXISTING NATIVE CLAY AND THEN LINING PARTS OF THE BOTTOM WITH ADDITIONAL QUANTITIES OF CLAY. THE CAPACITY OF THE PIT WAS EXPANDED IN 1957 WHEN EXCAVATED SPOIL MATERIAL FROM THE CONSTRUCTION OF PIT 2 WAS USED TO BUILD UP THE BERM AN EXTRA (5) FEET ON THE WEST SIDE.

DIMENSIONS: ORIGINAL MAXIMUM DEPTH = 17 FEET; ORIGINAL VOLUME = 29,000 CY
EXPANDED MAXIMUM DEPTH = 17 FEET; EXPANDED VOLUME = 40,000 CY

PIT OPERATION: DURING THE PERIOD 1953-1959, THERE WAS NO NEED FOR A SETTLING LAGOON FOR F.M.P.C. WASTE STREAMS. WASTE SLURRIES WERE FILTERED OR CALCINED TO REMOVE WATER FROM THE SOLIDS, AND THE FILTER CAKES OR CALCINED DRY WASTES WERE PLACED IN ONE OF THE CONCRETE SILOS. OTHER SOLID WASTES WERE PLACED IN PIT 1. DURING 1958-1959 PIT 1 WAS USED AS A CLEARWELL FOR PIT 2.

PIT CONTENTS: PIT 1 RECEIVED THE FOLLOWING RADIOACTIVE WASTES: NEUTRALIZED WASTE FILTER CAKE, SUMP CAKES FROM THE PRODUCTION PLANTS, DEPLETED SLAG, SCAP GRAPHITE, CONTAMINATED BRICK, AND SUMP LIQUOR.

COMMENTS: PIT 1 WAS CONSTRUCTED WITH 8" DECANT PIPES THROUGH THE WEST BERM. THESE DECANT PIPES WERE RARILY USED DURING THE PIT'S OPERATING LIFE.

ZONE AREAS: AS PER DRAWING 08C-5500-G-01161, ARE AS FOLLOWS:
"A" - DEPLETED MATERIALS, SLAG LINER, "C" LINER AND FLOOR SWEEPINGS
"B" - FILTER CAKE - PLANT 8 (NORMAL)
"C" - SEMI-LIQUID CAKE, SUMP LIQUOR (NORMAL)
"D" - SCRAP GRAPHITE, BRICK AND MISC. SOLIDS (NORMAL)
"E" - CHEMICAL TRAP RESIDUES IN DRUMS (HF)

DATA SOURCE: "FMPC WASTE INVENTORY DATA" REPORT (MARCH 12, 1985)

NOTES

1. EXISTING CONDITIONS SHOWN ON THIS DRAWING WERE PREPARED FROM FEMP SITE PROVIDED DATA FROM THE DOCUMENTS LISTED BELOW.

   EXISTING SITE DATA SOURCE (IN PLANT FILES)
   AERIAL TOPOGRAPHY, 1992
   FEMP CADD GRID/UTILITY DRAWINGS
   FEMP CONTRACTOR PROJECT DESIGN DOCUMENTS

2. THE GEOMETRIC CONFIGURATIONS, THE LINER THICKNESSES, AND THE BOTTOM ELEVATIONS OF THE WASTE PITS WERE DETERMINED FROM THE BEST AVAILABLE DATA AT THIS TIME. THIS DATA WAS GATHERED FROM CONSTRUCTION, AS-BUILT, SURVEY, AND FEASIBILITY STUDY DRAWINGS (1/31/92, REV 1), AND FROM THE EXISTING PLANT ENGINEERING FILES.
   THE DIKE CREST SHOWN AROUND THE WASTE PITS REPRESENTS THOSE BUILT AT THE TIME OF CONSTRUCTION. MOST OF THE DIKES HAVE BEEN BURIED WITH COVER MATERIAL OF DIFFERENT THICKNESSES.

3. IT WAS DETERMINED FROM EXISTING PIT DRAWINGS THAT THIS AREA HAD A WET SPOTIN SOUTHEAST SECTION OF PIT1. A THICKENED MAT OF IMPERVIOUS CLAY WAS INSTALLED TO COUNTERACT THIS WETNESS

4. CP54-70 PERTAINS TO THE ASPHALT APRON AND CURBING ON THE EAST SIDE OF THE PIT.

LEGEND

- GLACIAL OVERBURDEN
- CLAY LINER
- FILL SOIL
- SAND AND/OR GRAVEL
- SOIL MIXED WITH WASTE
- WASTE
- PIT OUTLINE COVERED
- PIT OUTLINE DIKE
- PIT OUTLINE BOTTOM
- SLOPE
- MAJOR CONTOUR
- FENCE
- RAILROAD
- PAVED ROAD
- GRAVEL ROAD
- POST INDICATOR VALVE (PIV)
- FIRE HYDRANT (FH)
- MANHOLE (MH)
- CATCH BASIN (CB)
- POWER POLE
- VALVE BOX
- MONITORING WELL

0 15 30 75 150
SCALE IN FEET

1992 PHOTOGRAMMETRY
PREPARED BY: WOOLPERT CONSULTANTS

WASTE PITS GEOMETRIC CONFIGURATION
PREPARED BY: PARSONS

DO NOT SCALE REDUCED DRAWING

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.

REF. DWG. NO.
08C-5500-G-01161
08C-5500-G-01195
21A-5500-G-00101
08C-5500-P-01218
21A-5500-G-00096
08C-5500-P-01131
08X-5500-G-00247
08C-5500-G-01116
08C-5500-G-00864

NOTE:
FERMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS ± 1/16
ANGLES ± 0° - 30'
DECIMALS
.X ± 0.1
.XX ± 0.03
.XXX ± 0.010
.XXXX ± 0.0100
DWG. RELEASE DATE

APPROVALS				
CIVIL & STR.			SAFETY ENG.	
ELECTRICAL			MAINTENANCE	
ENGINEER			Q.A.	
INSTRUMENT			FIRE PROTECT.	
MECHANICAL			WASTE MANAGE	
			SECURITY	
			CRU	
CHECKED	YGP			
APPROVED	D.E. Paul	11/1/93		

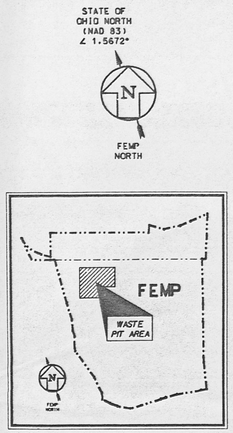
FERNALD ENVIRONMENTAL RESTORATION MANAGEMENT CORPORATION
FERMCO
Fernald Environmental Management Project
U.S. DEPARTMENT OF ENERGY

CRU-1 WASTE PITS AREA
CERCLA/RCRA UNIT ONE AREA
WASTE PIT No.1
HISTORICAL CONFIGURATION
SCALE: 1"=30'-0"
5

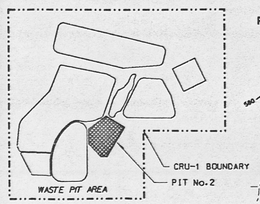
RES 2080
DATE 25 FEB 93
DRAWN M.E. TILLMAN
21A-5500-G-00251 | 0

FILE NAME: /res2080/CRU1AB005.DGN

OCT 6 '94
Fri Oct 07 07:45:09 EDT 1994 jmc@wmc.com(zwa2)



VICINITY MAP



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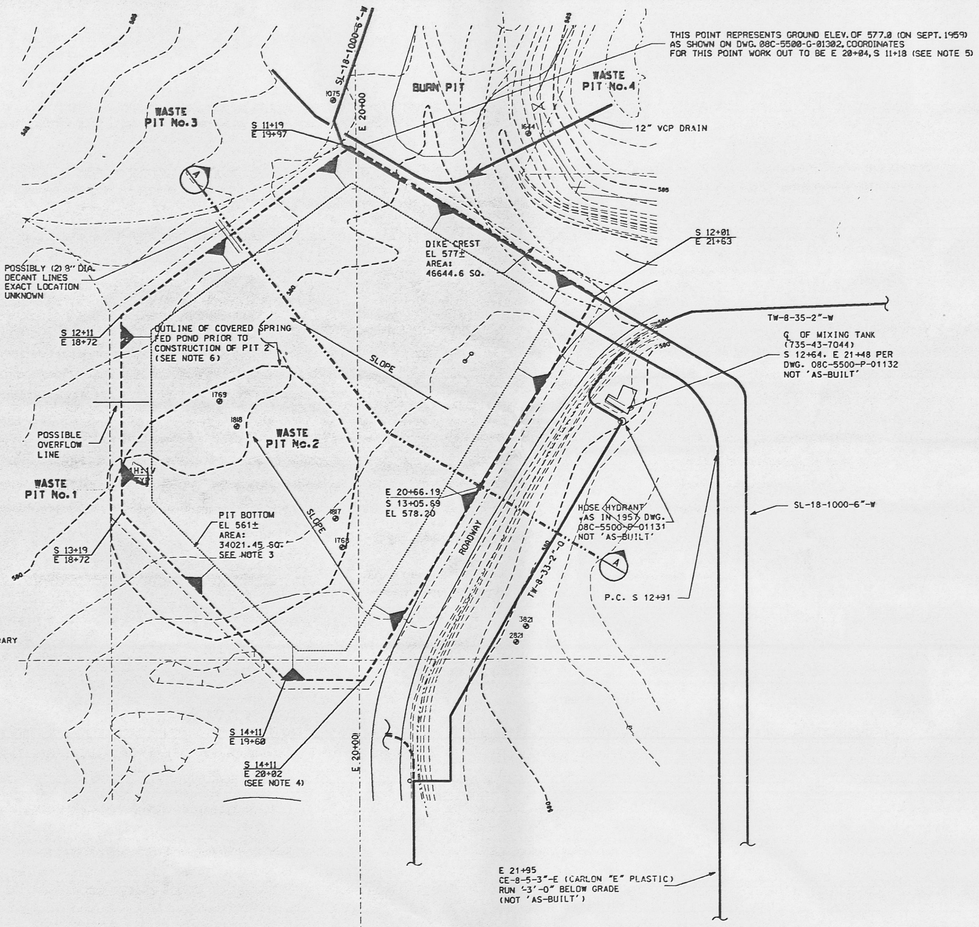
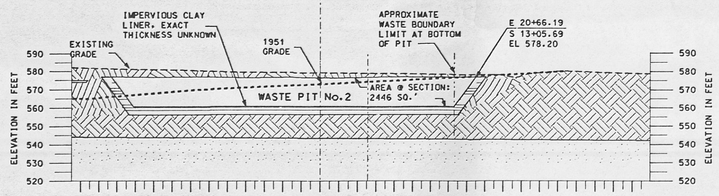




SECTION A
SCALE: 1"=30'

NOTES

1. EXISTING CONDITIONS SHOWN ON THIS DRAWING WERE PREPARED FROM FEMP SITE PROVIDED DATA FROM THE DOCUMENTS LISTED BELOW.

   EXISTING SITE DATA SOURCE (IN PLANT FILES)
   AERIAL TOPOGRAPHY: 1992
   FEMP CADD GRID/UTILITY DRAWINGS
   FEMP CONTRACTOR PROJECT DESIGN DOCUMENTS

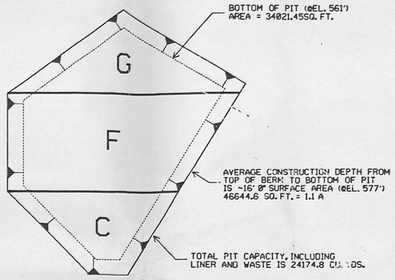
2. THE GEOMETRIC CONFIGURATIONS, THE LINER THICKNESSES, AND THE BOTTOM ELEVATIONS OF THE WASTE PITS WERE DETERMINED FROM THE BEST AVAILABLE DATA AT THIS TIME. THIS DATA WAS GATHERED FROM CONSTRUCTION, AS-BUILT, SURVEY, AND FEASIBILITY STUDY DRAWINGS (1/31/92, REV 1), AND FROM THE EXISTING PLANT ENGINEERING FILES.
   THE DIKE CREST SHOWN AROUND THE WASTE PITS REPRESENTS THOSE BUILT AT THE TIME OF CONSTRUCTION. MOST OF THE DIKES HAVE BEEN BURIED WITH COVER MATERIAL OF DIFFERENT THICKNESSES.

3. THE BORING LOGS WERE USED TO DEVELOP THESE BOTTOM ELEVATIONS.

4. COORDINATE VALUES ON THE (6) CORNER ARE INDICATED ON DWG. 08X-5500-G-01109 AND DO NOT REFLECT AN 'AS - BUILT' CONDITION

5. IT IS AT THIS POINT THAT THE GROUND CORRELATION OF 577'± 98' (AS WAS THE TOPOGRAPHY INDICATED ON THE 08C-5500-G-01161, 08C-5500-G-00864, 08C-5500-G-01101 08C-5500-G-01086) WAS DETERMINED

6. POND WAS REMOVED AND PLUGGED WITH IMPERVIOUS BLUE CLAY



CONSTRUCTED: 1957 COST: $25,573.00

IN USE: 1957 - MID 1964

CONSTRUCTION: PIT 2 WAS CONSTRUCTED IN THE LOCATION OF A SMALL POND NORTH-EAST OF PIT 1. THE PIT IS AN IN-GROUND FACILITY WHICH WAS CONSTRUCTED BY EXCAVATING A BASIN INTO THE EXISTING NATIVE CLAY.

DIMENSIONS: MAXIMUM DEPTH OF WASTE = 13 FEET; VOLUME = 13,000 CY

PIT OPERATION: AS WITH PIT 1, FILTER CAKES AND SOLID WASTE WERE PLACED IN PIT 2. DURING 1958-1959, IT BECAME NECESSARY TO USE PIT 2 FOR THE DISPOSAL OF NEUTRALIZED, CONCENTRATED REFINERY RAFFINATE RESIDUES BECAUSE THE DRYING EQUIPMENT AVAILABLE COULD NOT PROCESS ALL OF THE RAFFINATE OUTPUT. THE REMAINING CAPACITY OF PIT 1 WAS USED AS A CLEARWELL FOR THE EFFLUENTS GOING TO THE GREAT MIAMI RIVER.

PIT CONTENTS: PIT 2 RECEIVED THE FOLLOWING RADIOACTIVE WASTES: NEUTRALIZED WASTE FILTER CAKE, SUMP CAKES FROM THE PRODUCTION PLANT, DEPLETED SLAG, SCRAP GRAPHITE, CONTAMINATED BRICK, AND SUMP LIQUOR. IT WAS ALSO USED AS A SETTLING POND FOR NEUTRALIZED RAFFINATE RESIDUES FOR ABOUT ONE YEAR PRIOR TO THE COMPLETION OF PIT 3.

COMMENTS: LIKE PIT 1, PIT 2 WAS CONSTRUCTED WITH 8" DECANT PIPES THROUGH THE WEST BERM. THESE DECANT PIPES WERE RARELY USED DURING THE PITS' OPERATING LIFE.

ZONED AREAS: AS PER DRAWING 08C-5500-G-01161, ARE AS FOLLOWS:
"C" - SEMI-LIQUID FILTER CAKE AND SUMP LIQUOR (NORMAL)
"F" - RESERVED
"G" - RESERVED

DATA SOURCE: "FMPC WASTE INVENTORY DATA" REPORT (MARCH 12, 1985)

LEGEND

- GLACIAL OVERBURDEN
- CLAY LINER
- FILL SOIL
- SAND AND/OR GRAVEL
- SOIL MIXED WITH WASTE
- WASTE
- PIT OUTLINE COVERED
- PIT OUTLINE DIKE
- PIT OUTLINE BOTTOM
- SLOPE
- MAJOR CONTOUR
- FENCE
- RAILROAD
- PAVED ROAD
- GRAVEL ROAD
- POST INDICATOR VALVE (PIV)
- FIRE HYDRANT (FH)
- MANHOLE (MH)
- CATCH BASIN (CB)
- POWER POLE
- VALVE BOX
- MONITORING WELL
- SIGN

0 15 30 75 150
SCALE IN FEET

1992 PHOTOGRAMMETRY
PREPARED BY: WOOLPERT CONSULTANTS

WASTE PITS GEOMETRIC CONFIGURATION
PREPARED BY: PARSONS

DO NOT SCALE REDUCED DRAWING

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.

REF. DWG. NO.
08C-5500-P-01132
08C-5500-P-01131
CP 56-24
78X-5900-G-00247
08C-5500-G-01161
08C-5500-G-01302
08X-5500-G-01109

NOTE:
FERMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS ± 1/16
ANGLES ± 0° - 30'
DECIMALS
.X ± 0.1
.XX ± 0.03
.XXX ± 0.005
.XXXX ± 0.0005
DWG. RELEASE DATE

APPROVALS					
CIVIL & STR.			SAFETY ENG.		
ELECTRICAL			MAINTENANCE		
ENGINEER			Q.A.		
INSTRUMENT			FIRE PROTECT.		
MECHANICAL			WASTE MANAGE		
			SECURITY		
			CRU		
CHECKED	JBP				
APPROVED	MEPaul	11/13			

FERNALD ENVIRONMENTAL RESTORATION MANAGEMENT CORPORATION
FERMCO
Fernald
Environmental Management Project
U.S. DEPARTMENT OF ENERGY

CRU-1 WASTE PITS AREA

CERCLA/RCRA UNIT ONE AREA
WASTE PIT No.2
HISTORICAL CONFIGURATION
SCALE: 1"=30'-0"

RES 2080
DATE 2 MAR 93
DRAWN M.E. TILLMAN

21A-5500-G-00252 | 0

FILE NAME: /res2080/cru1cb006.dgn

cru1ab006.m(4820.ws2) jim@ws2 Mon Nov 1 09:57:36 EST 1993

OCT 6 '94 100

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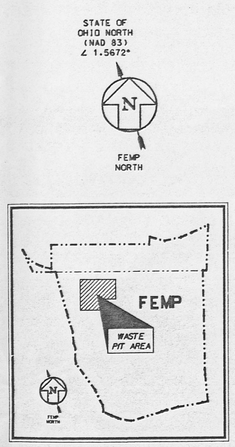
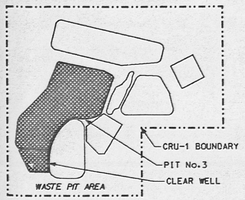
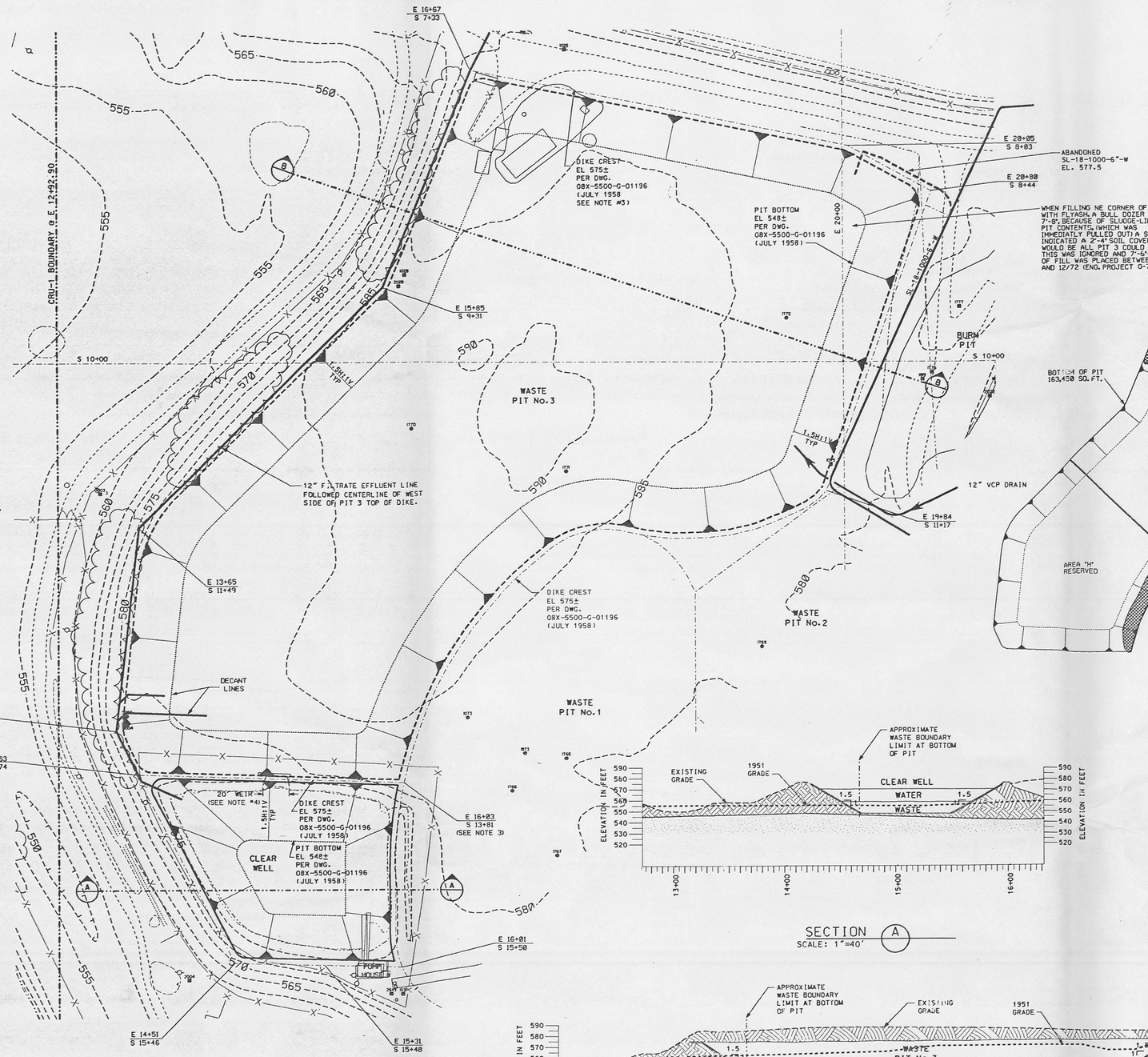
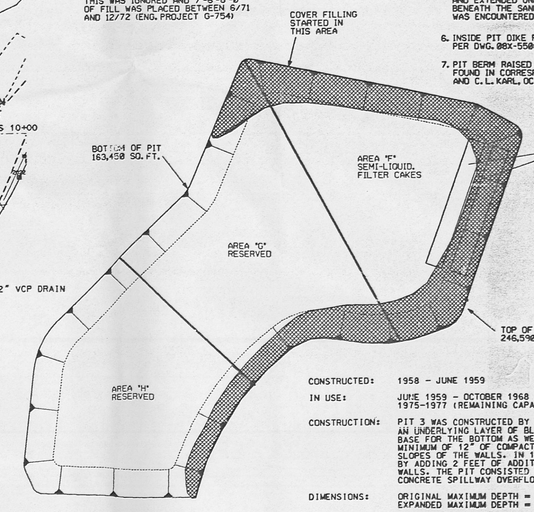


VICINITY MAP



KEY PLAN





NOTES

1. EXISTING CONDITIONS SHOWN ON THIS DRAWING WERE PREPARED FROM FEMP SITE PROVIDED DATA FROM THE DOCUMENTS LISTED BELOW.

   EXISTING SITE DATA SOURCE (IN PLANT FILES)
   AERIAL TOPOGRAPHY, 1992
   FEMP CADD GRID/UTILITY DRAWINGS
   FEMP CONTRACTOR PROJECT DESIGN DOCUMENTS

2. THE GEOMETRIC CONFIGURATIONS, THE LINER THICKNESSES, AND THE BOTTOM ELEVATIONS OF THE WASTE PITS WERE DETERMINED FROM THE BEST AVAILABLE DATA AT THIS TIME. THIS DATA WAS GATHERED FROM CONSTRUCTION, AS-BUILT, SURVEY, AND FEASIBILITY STUDY DRAWINGS (1/31/92, REV 11), AND FROM THE EXISTING PLANT ENGINEERING FILES.
   THE DIKE CREST SHOWN AROUND THE WASTE PITS REPRESENTS THOSE BUILT AT THE TIME OF CONSTRUCTION. MOST OF THE DIKES HAVE BEEN BURIED WITH COVER MATERIAL OF DIFFERENT THICKNESSES.

3. THE (12) COORDINATE CALLOUTS REPRESENT "AS-BUILT" CONTROL POINTS AS INDICATED ON DWG. 08X-5500-G-01196

4. TIMBER PILING HAS BEEN NOTED FREQUENTLY DURING CONSTRUCTION OF WEIR. EXACT DEPTH NOT SPECIFIED. THIS WAS FOUND IN CP56-40 DOCUMENTS AND ON DWG. 08C-5500-S-00197.

5. POROUS AREAS WERE FOUND AT THE NORTH AND SOUTH ENDS (OF DIKES) OF PIT #3, APPROX. .45 A ON THE SOUTH END AND .15 A ON THE NORTH WERE EXCAVATED AND FILLED WITH COMPACTED CLAY. THE EXCAVATION WAS APPROX. 10' WIDE AND EXTENDED ONE FOOT INTO THE CLAY STRATA BENEATH THE SAND AND GRAVEL. EST. 3.5'-4.0' OF SAND AND GRAVEL WAS ENCOUNTERED (AUG 21, 1958 CHANGE ORDER.

6. INSIDE PIT DIKE FACE LINED WITH MIN. 12" SELECT IMPERVIOUS CLAY PER DWG. 08X-5500-G-01196, NOT 'AS-BUILT

7. PIT BERM RAISED TO 577.0' IN 1965, PER COMMENT FOUND IN CORRESPONDANCE BETWEEN J. H. NOYES AND C. L. KARL, OCT. 18, 1968

CONSTRUCTED: 1958 - JUNE 1959 COST: $163,298.00

IN USE: JUNE 1959 - OCTOBER 1968 (AS A SETTLING PIT)
1975-1977 (REMAINING CAPACITY FILLED WITH SOLID WASTE)

CONSTRUCTION: PIT 3 WAS CONSTRUCTED BY EXCAVATING A LARGE BASIN DOWN INTO AN UNDERLYING LAYER OF BLUE CLAY, WHICH PROVIDED AN IMPERVIOUS BASE FOR THE BOTTOM AS WELL AS A LINING FOR THE WALLS. A MINIMUM OF 12" OF COMPACTED CLAY WAS USED TO LINE THE INNER SLOPES OF THE WALLS. IN 1965, THE PIT CAPACITY WAS EXPANDED BY ADDING 2 FEET OF ADDITIONAL MATERIAL TO THE TOP OF THE PIT WALLS. THE PIT CONSISTED OF A LARGE SETTLING BASIN WITH A CONCRETE SPILLWAY OVERFLOWING INTO A CLAY-LINED CLEARWELL.

DIMENSIONS: ORIGINAL MAXIMUM DEPTH = 25 FEET; ORIGINAL VOLUME = 226,500 CY
EXPANDED MAXIMUM DEPTH = 27 FEET; EXPANDED VOLUME = 248,500 CY

PIT OPERATION: PIT 3 WAS THE FIRST "WET" PIT SPECIFICALLY FOR THE PURPOSE OF SETTLING SOLIDS FROM WET WASTE STREAMS. THE WASTE SLURRIES WERE PUMPED FROM PLANT 8 AND THE GENERAL SUMP INTO THE PIT, WITH THE CLARIFIED EFFLUENT OVERFLOWING THE SPILLWAY INTO THE CLEARWEEL PRIOR TO DISCHARGE TO THE GREAT MIAMI RIVER.

PIT CONTENTS: THE PRINCIPLE WASTE CONTAINED IN PIT 3 IS LIME-NEUTRALIZED RADIOACTIVE RAFFINATE CONCENTRATE. IN DECEMBER 1959, LIME SLUDGE FROM THE WATER TREATMENT PLANT BEGAN BEING ADDED TO SUPPLEMENT THE LIME USED FOR RAFFINATE NEUTRALIZATION. DURING THE LATE 1960'S LARGE QUANTITIES OF RADIOACTIVE SLAG LEACH RESIDUES WERE PUMPED TO PIT 3 UNTIL OCTOBER 1968, WHEN PIT 5 TOOK OVER AS THE SETTLING BASIN. FROM 1975 TO 1977, SOLID WASTES (FILTER CAKE AND FLY ASH) WERE USED TO COMPLETE THE FILLING OF THE PIT.
A COVER OF DIRT AND CINDER WAS PLACED ON PIT 3 FROM 6/1/71 THRU 12/27/72 IN THE AMOUNT OF 83,000 CU.YD. A BREAKDOWN OF QUANTITIES ARE AS FOLLOWS:
18,390 CU.YD. (CINDERS FROM SOUTH PIT)
10,010 CU.YD. (SILO CINDERS)
46,730 CU.YD. (DIRT FROM FIELD N.W. PIT 3)
780 CU.YD. (COAL FINES FROM COAL PILE)
7,000 CU.YD. (COMBINATION BROKEN CONCRETE AND EARTH EXCAVATIONS)

CONSIDERABLE AMOUNTS OF DIRT WAS PUSHED FROM PIT 1 + 2 ONTO PIT 3 DURING THAT TIME. THE ABOVE QUANTITIES DO NOT REFLECT THAT ADDITIONAL VOLUME. WHEN THE DIRT COVER WAS STARTED, THE LEVEL OF PIT 3 WAS AROUND 570' TO 571' AND THE DEPTH OF THE SLUDGE IN PIT 3 WAS APOUND 21 FEET. WITH THE ABOVE SURFACE AREA, ALONG WITH 83,000 CU.YD. OF MATERIAL FILL, A DEPTH OF AROUND 7.5 TO 8.0 FEET WAS SEEN (AVE. EL. 578.25'). PER ENG. PROJ. G-574

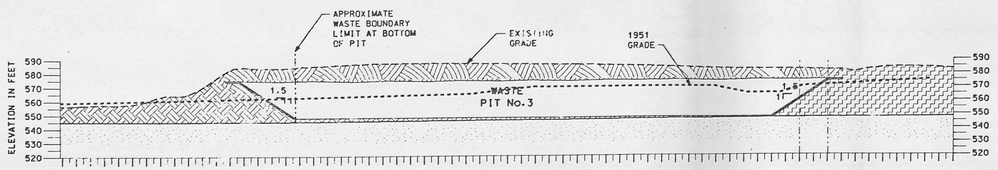
COMMENTS: PRIOR TO THE EARTHEN COVER, THE PIT UNDERWENT A CONSOLIDATION OF MATERIALS AND DROPPED 3-4' BELOW BERM ELEVATION. ADDITIONAL QUANTITIES OF EARTH WERE MOUNDED TO PROVIDE SUITABLE RUNOFF TO THE SPILLWAY AND CLEARWELL ON THE SOUTH END. ADDITIONAL FILL DIRT WAS PLACED ON THE PIT WHICH CAME FROM THE AREA AROUND THE SURGE LAGOON, APRA WEST OF PIT 5 AND THE AREA AROUND THE STORM WATER RETENTION BASIN.

DATA SOURCE: "FMPC WASTE INVENTORY DATA" MARCH 12, 1985.

LEGEND

- GLACIAL OVERBURDEN
- CLAY LINER
- FILL SOIL
- SAND AND/OR GRAVEL
- SOIL MIXED WITH WASTE
- WASTE
- PIT OUTLINE COVERED
- PIT OUTLINE DIKE
- PIT OUTLINE BOTTOM
- SLOPE
- MAJOR CONTOUR
- FENCE
- RAILROAD
- PAVED ROAD
- GRAVEL ROAD
- POST INDICATOR VALVE (PIV)
- FIRE HYDRANT (FH)
- MANHOLE (MH)
- CATCH BASIN (CB)
- POWER POLE
- VALVE BOX
- MONITORING WELL

SECTION A
SCALE: 1"=40'



SECTION B
SCALE: 1"=40'

DO NOT SCALE REDUCED DRAWING

1992 PHOTOGRAMMETRY
PREPARED BY: WOOLPERT CONSULTANTS

WASTE PITS GEOMETRIC CONFIGURATION
PREPARED BY: PARSONS

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
										CP 58-40
										75X-5500-G-00247
										08C-5500-G-01197
										08X-5500-G-01196

NOTE:
FERMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS ± 1/16
ANGLES ± 0°-30'
DECIMALS
.X ± 0.1
.XX ± 0.03
.XXX ± 0.005
.XXXX ± 0.0050
ORIG. RELEASE DATE

APPROVALS			
CIVIL & STR.		SAFETY ENG.	
ELECTRICAL		MAINTENANCE	
ENGINEER		Q.A.	
INSTRUMENT		FIRE PROTECT.	
MECHANICAL		WASTE MANAGE	
		SECURITY	
		CRU	
CHECKED	REP		
APPROVED		11/1/93	

FERNALD ENVIRONMENTAL RESTORATION MANAGEMENT CORPORATION
FERMCO
Fernald Environmental Management Project
U.S. DEPARTMENT OF ENERGY

CRU-1 WASTE PITS AREA

CERCLA/RCRA UNIT ONE AREA WASTE PIT No.3 & CLEARWELL HISTORICAL CONFIGURATION

SCALE: 1"=40'-0"

RES 2080
DATE 3 MAR 93
DRAWN M.E. TILLMAN

21A-5500-G-00253 | 0

FILE NAME: /res2080/CRU1A8007.DGN

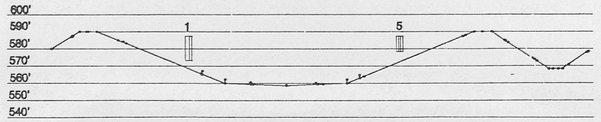
OCT 6 '94

cru1ab007.m(4810.ws2) jim@ws2. Fri Oct 29 08:02:14 EDT 1993

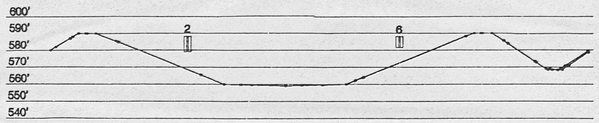
6527

GENERAL NOTES:

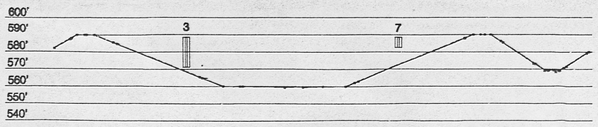
1. SAMPLE LOCATIONS & DEPTHS ARE APPROXIMATE.
2. DRAWINGS ARE COMPILED FROM EXISTING DESIGN DRAWINGS, AND REPRESENT BEST AVAILABLE INFORMATION.
3. SUBCONTRACTOR SHALL FIELD VERIFY ALL LOCATIONS AND DEPTHS. ALL PRECAUTIONS SHALL BE TAKEN NOT TO BREACH PIT LINERS.



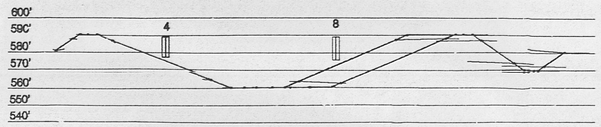
SECTION A-A



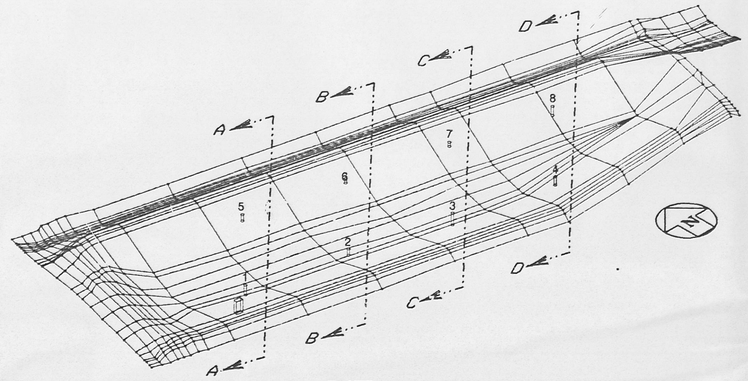
SECTION B-B



SECTION C-C

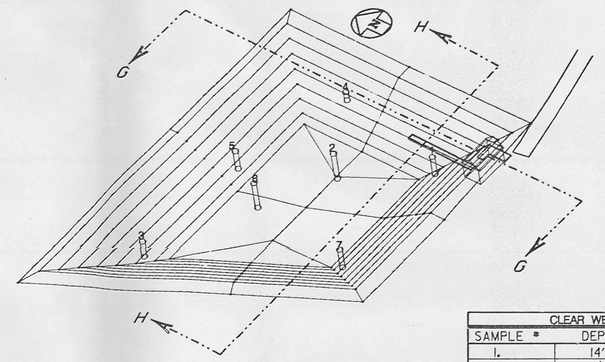


SECTION D-D



PIT #5

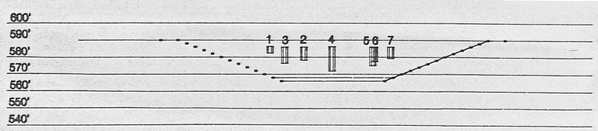
PIT #5		
SAMPLE #	DEPTH	ELEV.
1.	14'-2"	572.25'
2.	9'-0 1/4"	578.88'
3.	17'-1 1/2"	571.18'
4.	12'-0"	576.8'
5.	9'-0 1/2"	578.45'
6.	6'-4 3/4"	581.81'
7.	5'-11 3/4"	582.52'
8.	12'-6"	576.2'



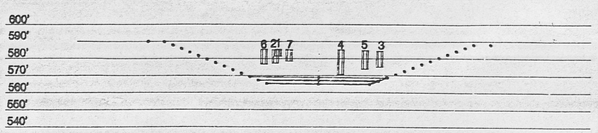
CLEARWELL

CLEAR WELL		
SAMPLE #	DEPTH	ELEV.
1.	14'	554.9'
2.	21'-1 1/4"	547.99'
3.	10'-0"	559.1'
4.	7'-0"	562.1'
5.	15'	554.09'
6.	21'-1 1/4"	547.99'
7.	10'	559.1'

PIT #6		
SAMPLE #	DEPTH	ELEV.
1.	4'-0"	576.4'
2.	7'-8 1/2"	572.29'
3.	10'-5"	570.5'
4.	14'-5"	560.0'
5.	11'-0"	569.0'
6.	8'-6"	571.5'
7.	6'-9"	573.25'



SECTION E-E



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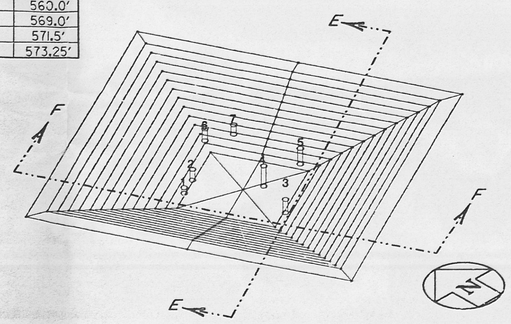

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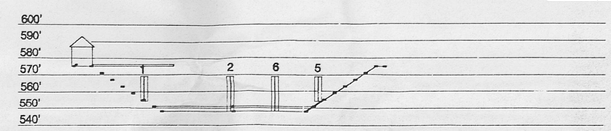
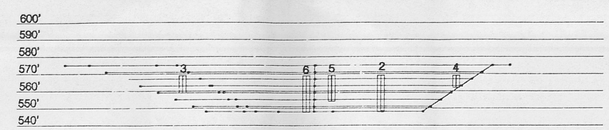


SECTION G-G



SECTION H-H

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS ± 1/16
ANGLES ± 0° - 30'
DECIMALS
.X ± 0.1
.XX ± 0.03
.XXX ± 0.005
.XXXX ± 0.0005
ORIG. RELEASE DATE

APPROVALS				
CHEMICAL			I.R.S. & T.	
CIVIL & STR.			MAINTENANCE	
ELECTRICAL			NU. SAFETY	
ENGINEER	DJ	10/10/91	Q.A.	
INSTRUMENT			PRODUCTION	
MECHANICAL			FIRE & SAFETY	
			WASTE MANAGE	
CHECKED	BEP		D.O.E.	
APPROVED	BEPaul	10/11/91	SECURITY	

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

GRID 31 — WASTE PIT AREA

WASTE PIT SAMPLING
SAMPLE LOCATIONS & DEPTHS
PIT #5, #6, & CLEARWELL

8

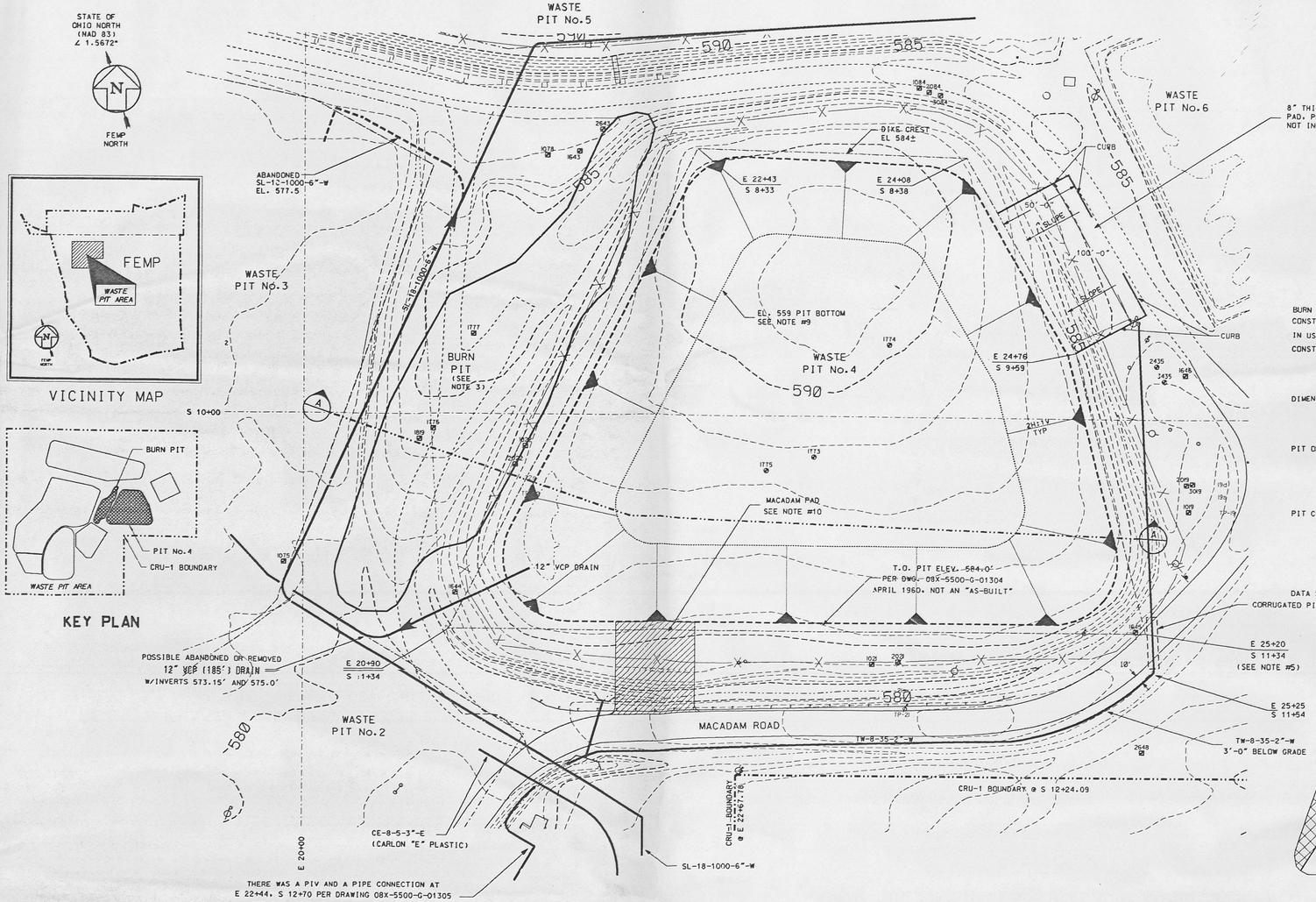
R.E.S. #1761
DATE 12/10/91
DRAWN MIKE LOCKE

21A-5500-G-00254 | 0

FILE NAME: SERVER1/USR/MODEL/RES /RES1761/21AG00254.DGN
TIME-10:47:46
DATE-Dec. 4, 1991

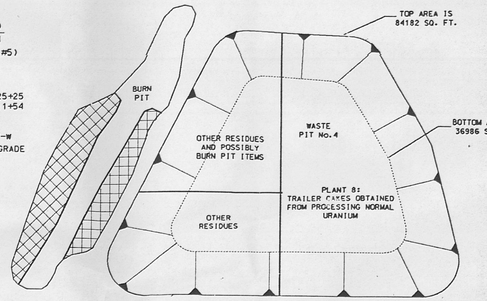
OCT 6 '94

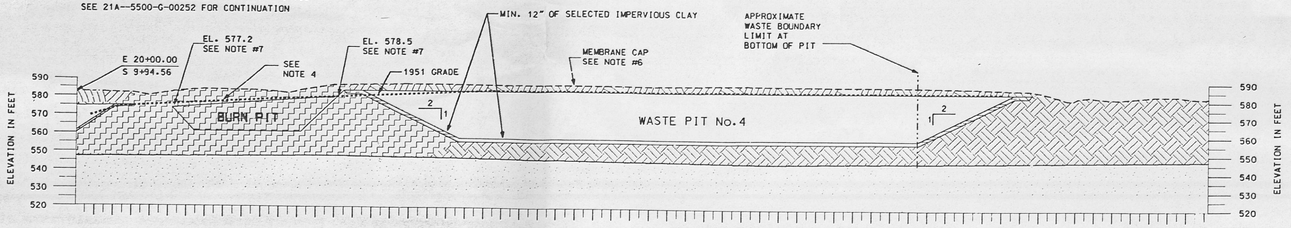
6527



VICINITY MAP

KEY PLAN





SECTION (A)
SCALE: 1"=30'

NOTES

1. EXISTING CONDITIONS SHOWN ON THIS DRAWING WERE PREPARED FROM FEMP SITE PROVIDED DATA FROM THE DOCUMENTS LISTED BELOW.

   EXISTING SITE DATA SOURCE (IN PLANT FILES)
   PARSONS TOPOGRAPHY, 1992
   FEMP CADD GRID/UTILITY DRAWINGS
   FEMP CONTRACTOR PROJECT DESIGN DOCUMENTS

2. THE GEOMETRIC CONFIGURATIONS, THE LINER THICKNESSES, AND THE BOTTOM ELEVATIONS OF THE WASTE PITS WERE DETERMINED FROM THE BEST AVAILABLE DATA AT THIS TIME. THIS DATA WAS GATHERED FROM CONSTRUCTION, AS-BUILT, SURVEY, AND FEASIBILITY STUDY DRAWINGS (1/31/92, REV 1), AND FROM THE EXISTING PLANT ENGINEERING FILES.
   THE DIKE CREST SHOWN AROUND THE WASTE PITS REPRESENTS THOSE BUILT AT THE TIME OF CONSTRUCTION. MOST OF THE DIKES HAVE BEEN BURIED WITH COVER MATERIAL OF DIFFERENT THICKNESSES.

3. THE GEOMETRIC CONFIGURATION OF THE BURN PIT HAS BEEN DETERMINED FROM THE SITE AS-BUILT SURVEY OF THE BURN PIT DIKE, (DWG. 08C-5500-G-01302 9/16/59)
   DEPTH AND SLOPES OF THE BURN PIT ARE NOT KNOWN.

4. BECAUSE OF INADEQUATE INFORMATION, THE BURN PIT AREA LOCATED BETWEEN WASTE PITS 3 AND 4 IS SHOWN AS SOIL MIXED WITH WASTE.

5. THE (5) COORDINATE CALLOUTS REPRSENT PIT 4 CONTROL POINTS AS INDICATED ON DWG.08X-5500-G-0304 AND DO NOT REFLECT AN "AS-BUILT" CONDITION

6. THE CURRENT MEMBRANE CAP AND TOPOGRAPHY OF PIT 4 WAS ACCOMPLISHED BY THE A.E. FIRM OF LOCKWOOD GREENE IN THE LATE SUMMER OR FALL OF 1988. THE ENGINEERING PROJECT WAS TITLED "COVER FOR PIT 4" THE WEMCO ENGINEERING PROJECT TITLE IS 40-87601. THESE PROJECT DESIGNS REFLECT "CFC" STATUS.

7. THE CONFIGURATION OF THE BURN PIT WAS DERIVED FROM DWG. 08C-5500-G-01302 DATED 9/16/59. THE ELEVATIONS WERE DERIVED FROM THE SAME DRAWING. BURN PIT SLOPE AND BOTTOM ARE ARBITRARY. THE DRAWING IS NOT INDICATED AS "AS-BUILT"

8. THIS CONC. PAD WAS REMOVED UNDER PROJECT 40- 87601.

9. PIT BOTTOM LOWERED TO EL. 559.0 FROM ORIGINAL EL. OF 560.0 PER CHANGE ORDER DATED 9/6/60. CP59-86.

10. MACADAM ROAD IS INDICATED ON DWGS 08X-5500-G-01304 AND 08X-5500-G-01306. WITH NO MENTION OF BEING "AS-BUILT"

BURN PIT

CONSTRUCTED: ~1953

IN USE: ? - JUNE, 1974

CONSTRUCTION: THE BURN PIT WAS EXCAVATED TO SUPPLY THE N'TIVE BLUE CLAY FOR THE LINING OF PIT 1 AND 2. IT WAS AN EXCAVATED PIT WITH THE ENTRANCE ON THE NORTH SIDE SLOPING DOWN TO THE SOUTH. TO THE IMMEDIATE WEST WAS THE EASTERN BERM OF PIT 3 AND TO IMMEDIATE EAST WAS THE WESTERN BERM OF PIT 4.

DIMENSIONS: EXACT DIMENTIONS NOT KNOWN, BUT FROM SCALING DRAWING 08C-5500-G-01302, THE TOP OUTLINE IS ROUGHLY 340' BY A VARYING WIDTH OF BETWEEN 30'- 85'. EXACT DEPTH IS NOT KNOWN, BUT FROM THE PHOTOGRAPH OF THE BURN PIT DATED AUG. 1959, A GUESS MIGHT PUT THE DEEPEST PART AT AROUND ELEV. 560'.

PIT OPERATION: BURNABLE ITEMS WERE ROUTINELY DISPOSITED INTO THE BURN PIT FROM DISCARDS FROM PRODUCTION PLANTS AND BUILDINGS, CAFETERIA AND CONSTRUCTION WASTE ACTIVITIES. THE REMAINS AFTER THE BURN WERE SCOOPED UP AND PUT INTO PIT 4. AT ABOUT THE TIME PIT 5 OPENED, THE BURN PIT FUNCTIONALITY CHANGED TO BECOMING A LANDFILL AREA. ON JUNE 19,1974, THE SANITARY LANDFILL BEGAN OPERATIONS, AND THE BURN PIT WAS BACKFILLED WITH EARTH AND ABANDONED.

PIT CONTENTS: A VARIETY OF "TRASH" ITEMS WERE DEPOSITED AND BURNED IN THE BURN PIT. ITEMS INCLUDED: TIN CANS, WOOD PALLETS AND BOXES, GRAVEL, SCRAP IRON, CLAY, ASHES, HELLS OF OXIDE, GREEN SALT, CHIPS, RAGS, PAPER, FLOOR SWEEPINGS, WIRE, GLASS, PIPE COVERINGS, CANS, OIL FILTERS, CERAMICS, LIGHT BULBS, INSULATION, VACUUM HOSES AND OTHER MISC. ITEMS. MOST CONTAINED RADIOACTIVE CONTAMINATION. THE BURN PIT WAS SEGREGATED WITH PRODUCTIONS BURNABLES ON THE WEST SIDE, CONSTRUCTION MATERIALS IN THE MIDDLE AND MATERIALS FROM THE CAFETERIA ON THE EAST SIDE.

DATA SOURCE: "FMPC WASTE INVENTORY DATA" REPORT (MARCH 12, 1985)

PIT 4

CONSTRUCTED: 1960 COST: $35.71[illegible]

IN USE: AUGUST 1960 - 1986

CONSTRUCTION: PIT 4 WAS CONSTRUCTED IN THE SAME MANNER AS PIT 3, BY EXCAVATING DOWN INTO THE UNDERLYING CLAY STRATA TO PROVIDE IMPERVIOUS MATERIAL FOR LINING THE PIT WALLS AND BOTTOM. A MINIMUM OF 12" OF COMPACTED CLAY WAS USED TO LINE THE INNER SLOPES OF THE PIT WALLS.

DIMENSIONS: MAXIMUM DEPTH = 24 FEET; VOLUME = 53,000 CU.YD., PER DRAWING 08X-5500-G-01304, 2/26/60. IT WAS LATER LOWERED TO ELEV. 559.0'

PIT OPERATION: SOLID WASTES WERE DUMPED FROM CONCRETE AND MACADAM ROADS ON THE EAST AND SOUTH SIDES AND PUSHED INTO THE PIT BY A BULLDOZER. RAINWATER WHICH COLLECTED IN THE PIT, AS WELL AS WATER FROM HOSING DOWN THE EAST PAD, WAS DRAINED INTO PIT 3 UNTIL IT BECAME FILLED (~1977). AFTER THAT IT WAS PUMPED TO PIT 5 AS NECESSARY. PIT 4 WAS SEGGREGATED FOR VARIOUS DISPOSAL OF RADIOACTIVE WASTES.

PIT CONTENTS: PIT 4 RECEIVED THE FOLLOWING TYPES OF WASTE: PLANT 8 TRAILER CAKE, CONTAMINATED GRAPHITE, NON-BURNABLE TRASH (SUCH AS CONCRETE, ROCKS, STONES, BRICK AND GLASS) AND POSSIBLY THE ASHES AND NON-BURNABLES FROM THE BURN PIT.
BETWEEN MAY 1981 AND APRIL 1983, PIT 4 ALSO RECEIVED 23,499 POUNDS OF LOW LEVEL RADIOACTIVE WASTE CONTAINING BARIUM CHLORIDE SALT.

COMMENTS: PIT 4 WAS SCHEDULED FOR USE SEPT. 1, 1960 AND LAST RECEIVED REFUSE ~1986. CONTAMINATED SOIL FROM THE PADS AROUND PIT 6 WAS SPREAD ONTO PIT 4 DURING THE PROJECT 40-86302 ("PIT 4 DIRT COVER"). PROJECT 40-87601 ("COVER FOR PIT 4") PUT IN AN INTERIM CLOSURE STATUS. IT INCORPORATED SOME CONTAMINATED SOILS FROM VARIOUS PILES AROUND THE PRODUCTION SITE. THE CLEAN SOIL THAT WAS GENERATED FROM THE S.W.R.B. PROJECT WAS THEN PLACED ON TOP AND GRADED. A TWO (2) FOOT LAYER OF COMPACTED CLAY (A MIXTURE OF NATIVE BLUE CLAY AND BENTENITE) EXTENDING ELEVEN (11) FEET BEYOND THE EDGE OF PIT 4 WAS THEN INSTALLED. A 40 MIL SYNTHETIC RUBBER HYPALON LINER THEN WAS INSTALLED AND ANCHORED.

DATA SOURCE: "FMPC WASTE INVENTORY DATA" REPORT (MARCH 12, 1985)

LEGEND

- GLACIAL OVERBURDEN
- CLAY LINER
- FILL SOIL
- SAND AND/OR GRAVEL
- SOIL MIXED WITH WASTE
- WASTE
- PIT OUTLINE COVERED
- PIT OUTLINE DIKE
- PIT OUTLINE BOTTOM
- SLOPE
- MAJOR CONTOUR
- FENCE
- RAILROAD
- PAVED ROAD
- GRAVEL ROAD
- POST INDICATOR VALVE (PIV)
- FIRE HYDRANT (FH)
- MANHOLE (MH)
- CATCH BASIN (CB)
- POWER POLE
- VALVE BOX
- MONITORING WELL

0 15 30 75 150
SCALE IN FEET

DO NOT SCALE REDUCED DRAWING

1992 PHOTOGRAMMETRY
PREPARED BY: WOOLPERT CONSULTANTS

WASTE PITS GEOMETRIC CONFIGURATION
PREPARED BY: PARSONS

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.

REF. DWG. NO.
08C-5500-G-01302
08C-5500-G-01303
08X-5500-G-01305
75Y-5900-G-00247
08X-5500-G-01304

NOTE: FERMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS ± 1/16
ANGLES ± 0°-30'
DECIMALS
.X ± 0.1
.XX ± 0.03
.XXX ± 0.005
.XXXX ± 0.0005
DWG. RELEASE DATE

APPROVALS

CIVIL & STR.		SAFETY ENG.	
ELECTRICAL		MAINTENANCE	
ENGINEER		Q.A.	
INSTRUMENT		FIRE PROTECT.	
MECHANICAL		WASTE MANAGE	
		SECURITY	
		CRU	
CHECKED	HAP		
APPROVED	[illegible] 11/1/93		

FERNALD ENVIRONMENTAL RESTORATION MANAGEMENT CORPORATION
FERMCO
Fernald
Environmental Management Project
U.S. DEPARTMENT OF ENERGY

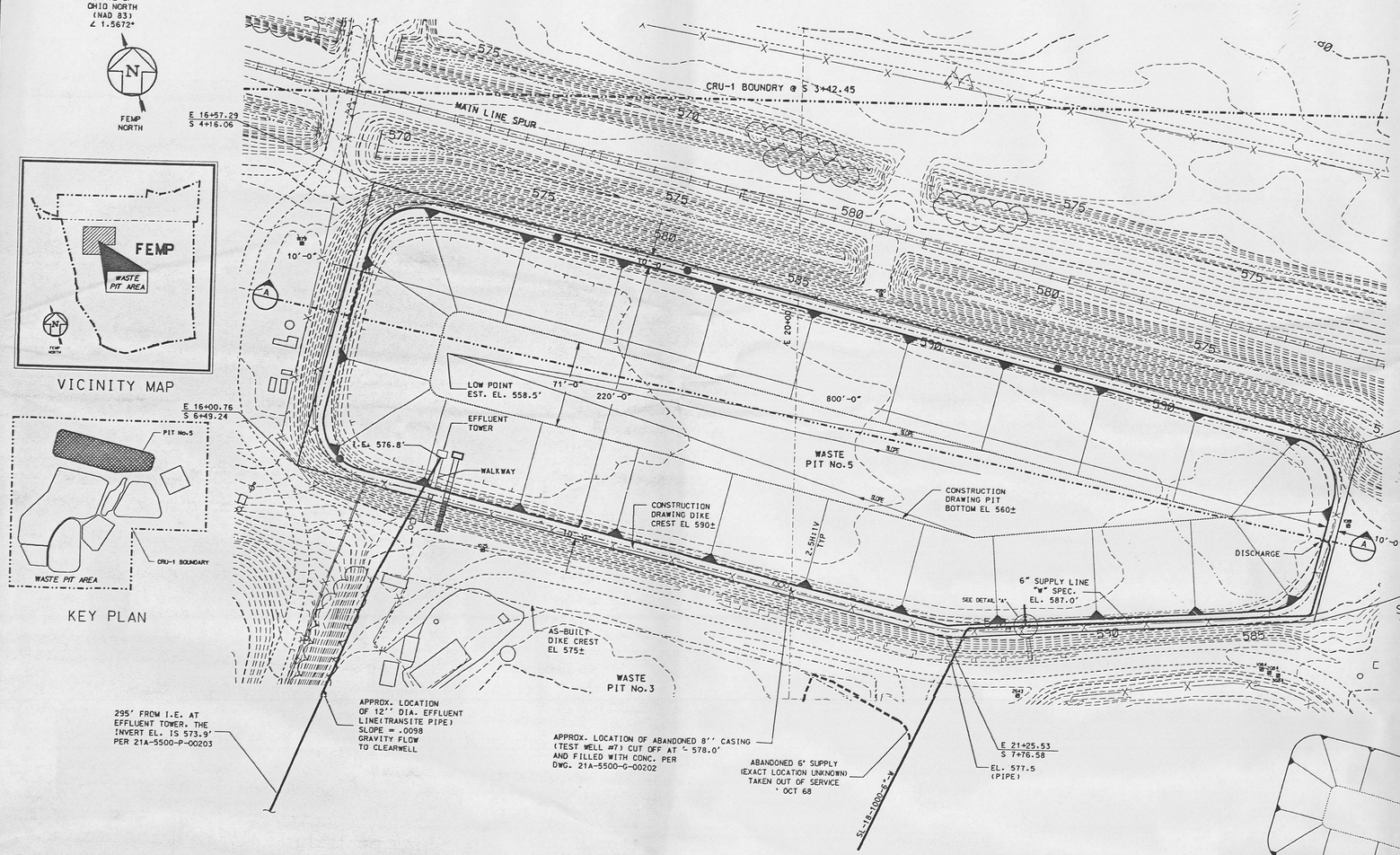
CRU-1 WASTE PITS AREA
CERCLA/RCRA UNIT ONE AREA
WASTE PIT No.4 & BURN PIT
HISTORICAL CONFIGURATION
SCALE: 1"=30'-0"

RES 2080
DATE 4 MAR 93
DRAWN M.E. TILLMAN
21A-5500-G-00255 | 0

FILE NAME: /res2080/cru1cb008.dgn

crulaa008.m(4811:wsz) jim@wsz Fri Oct 29 08:11:16 EDT 1993

6527



NOTES

1. EXISTING CONDITIONS SHOWN ON THIS DRAWING WERE PREPARED FROM FEMP SITE PROVIDED DATA FROM THE DOCUMENTS LISTED BELOW.

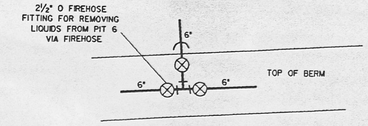
   EXISTING SITE DATA SOURCE (IN PLANT FILES)
   AERIAL TOPOGRAPHY, 1992
   FEMP CADD GRID/UTILITY DRAWINGS
   FEMP CONTRACTOR PROJECT DESIGN DOCUMENTS

2. THESE (5) COORDINATE CONTROL POINTS WERE GENERATED FROM THE 1992 AERIAL FLYOVER. THE CONTROL POINTS INDICATED ON DWG. 21A-5500-G-00196 WERE DETERMINED TO BE INCORRECT

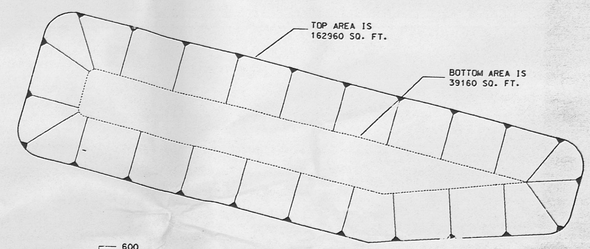
3. GROUNDWATER SEEPAGE AT DESIGN DEPTH ON SOUTH END OF PIT 5 WAS WITNESSED FOR THE ENTIRE EAST/WEST DIRECTION. CLAY PLUGS WERE INSTALLED SEVERAL TIMES, AS WELL AS FIBER BOARD IN SOME PLACES(CP68-13). APPROX. (368) 4'X8' SHEETS OF FIBER BOARD WERE PLACED.

4. NOT SHOWN ON PLAN IS THE LINER SHEET LAYOUT BY UNIROYAL. SEE DWG 21A-5500-M-00259

5. SOIL BORINGS DATA LOCATED IN CP68-13.

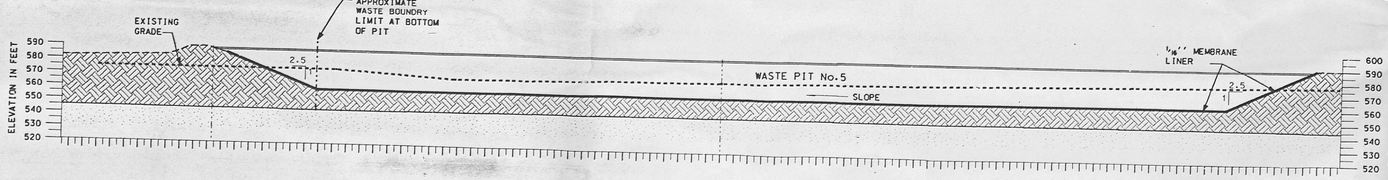


DETAIL "A"



LEGEND

- GLACIAL OVERBURDEN
- CLAY LINER
- FILL SOIL
- SAND AND/OR GRAVEL
- SOIL MIXED WITH WASTE
- WASTE
- PIT OUTLINE COVERED
- PIT OUTLINE DIKE
- SLOPE
- MAJOR CONTOUR
- FENCE
- RAILROAD
- PAVED ROAD
- GRAVEL ROAD
- POST INDICATOR VALVE (PIV)
- FIRE HYDRANT (FH)
- MANHOLE (MH)
- CATCH BASIN (CB)
- POWER POLE
- VALVE BOX
- MONITORING WELL



SECTION A
SCALE: 1"=40'

PLACED IN SERVICE OCT 68

CONSTRUCTED: JULY 11.1968 - DECEMBER 13.1968 COST: $220.014.00

IN USE: OCTOBER 21, 1968 - AUGUST 1983

CONSTRUCTION: PIT 5 WAS CONSTRUCTED BY CUT AND FILL, USING THE EVACUATED MATERIAL TO BUILD THE DIKE, EXTENDING THE PIT APPROXIMATELY 10 FEET ABOVE GRADE. THE PIT IS LINED WITH 60 MIL THICK ROYAL-SEAL EPDM ELASTOMERIC MEMBRANE (UNIROYAL)

DIMENSIONS: MAXIMUM DEPTH = 30 FEET; VOLUME=115,000 CU.YD., LIQUID CAPACITY=23,225,400 GAL.

PIT OPERATION: WASTES FROM THE REFINERY AND PLANT 8 WERE PUMPED IN THE FORM OF A THIN SLURRY TO THE PIT WHICH SERVERD A SETTLING BASIN. THE CLARIFIED EFFLUENT FLOWED BY GRAVITY TO THE CLEARWELL FROM WHICH IT WAS DISCHARGED TO THE GREAT MIAMI RIVER. AS OF AUGUST 1983, SOLIDS IN THE WASTE STREAMS WERE REMOVED BY FILTRATION PRIOR TO BEING PUMPED TO PIT 5. THE PIT IN NO LONGER USED FOR SETTLING SOLIDS. THERE ARE 3 VALVES LOCATED ON THE SOUTHERN BERM THAT CONTROL DISCHARGES INTO PIT 5. ONLY AN OCCASIONAL DISCHARGE OF WATER IS PERMITTED TO ENTER TO COVER DRYING MATERIALS. ONE VALVE (THE WESTERN ONE) HAS A FIRE HOSE FITTING TO PERMIT THE PUMPING OF LIQUIDS FROM PIT 6 (VIA FIRE HOSE) BACK TO THE GENERAL SUMP.

PIT CONTENTS: PIT 5 CONTAINS THE FOLLOWING RADIOACTIVE WASTES: SETTLED SOLIDS FROM NUETRALIZED RAFFINATE, SLAG LEACH SLURRY, AND SUMP SLURRIES. WATER TREATMENT PLANT LIME SLUDGE WAS ALSO ADDED TO SUPPLEMENT THE LIME USED FOR RAFFINATE NEUTRALIZATION.

COMMENTS: THE EDPM LINER IN PIT 5 HAS PROVEN TO BE EXTREMELY DURABLE AND RESISTANT IN REGARD TO ATTACK BY CHEMICALS AND SUNLIGHT. OCCASIONAL JOINT FAILURES AND TEARS HAVE BEEN OBSERVED AND REPAIRED.

DATA SOURCE: FMPC WASTE INVENTORY DATA" MARCH 12, 1985.

0 20 40 100 200
SCALE IN FEET

1992 PHOTOGRAMMETRY
PREPARED BY: WOOLPERT CONSULTANTS

WASTE PITS GEOMETRIC CONFIGURATION
PREPARED BY: PARSONS

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.

75X-5900-G-00247
75X-5900-G-00239
21A-5500-P-00203
21A-5500-G-00201
21A-5500-G-00199
21A-5500-S-00200
21A-5500-G-00198
21A-5500-G-00197
21A-5500-G-00202
21A-5500-G-00196
REF. DWG. NO.

DO NOT SCALE REDUCED DRAWING

NOTE: FERMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS ± 1/16
ANGLES ± (0° - 30')
DECIMALS
.X ± .01
.XX ± .005
.XXX ± .0005
.XXXX ± .00005
ORIG. RELEASE DATE

APPROVALS				
CIVIL & STR.			SAFETY ENG.	
ELECTRICAL			MAINTENANCE	
ENGINEER			Q.A.	
INSTRUMENT			FIRE PROTECT.	
MECHANICAL			WASTE MANAGE	
			SECURITY	
CHECKED	TEP		CRU	
APPROVED	JE Paul	9/1/93		

FERNALD ENVIRONMENTAL RESTORATION MANAGEMENT CORPORATION
FERMCO
Fernald Environmental Management Project
U.S. DEPARTMENT OF ENERGY

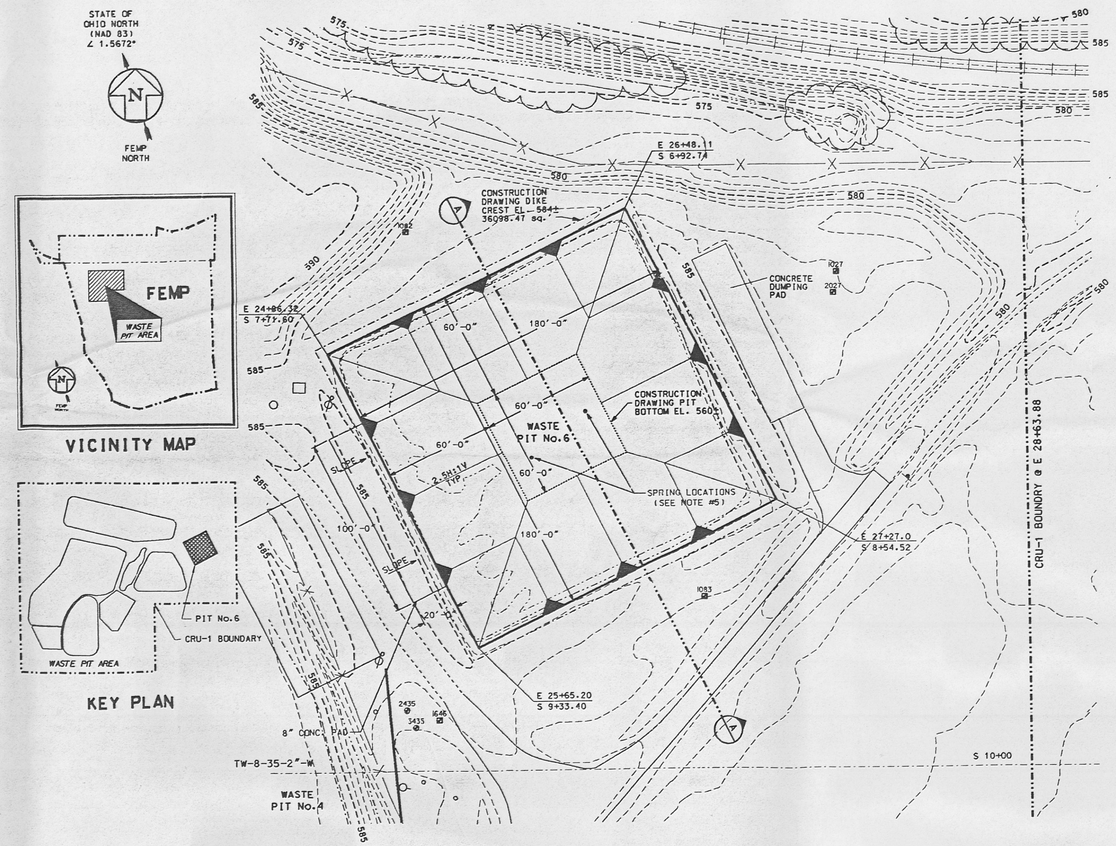
CRU-1 WASTE PITS AREA
CERCLA/RCRA UNIT ONE AREA
WASTE PIT No.5
HISTORICAL CONFIGURATION
SCALE: 1"=40'-0"
10

RES 2080
DATE 10 MAR 93
DRAWN M.E. TILLMAN
21A-5500-G-00256 0

FILE NAME: /res2080/cru1ab009.dgn

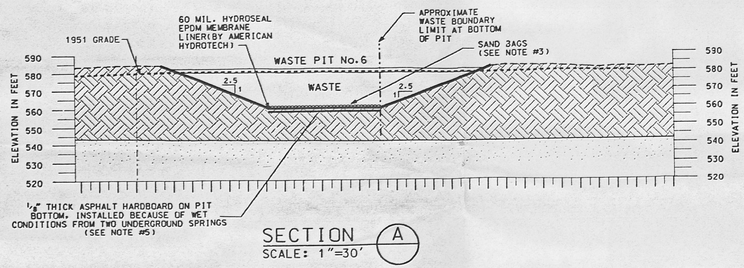
cru1ab009.m(4812.ws2) jim@ws2 Fri Oct 29 08:31:46 EDT 1993

6527



VICINITY MAP

KEY PLAN



SECTION A
SCALE: 1"=30'

NOTES

1. EXISTING CONDITIONS SHOWN ON THIS DRAWING WERE PREPARED FROM FEMP SITE PROVIDED DATA FROM THE DOCUMENTS LISTED BELOW.

   EXISTING SITE DATA SOURCE (IN PLANT FILES)
   AERIALTOPOGRAPHY, 1992
   FEMP CADD GRID/UTILITY DRAWINGS
   FEMP CONTRACTOR PROJECT DESIGN DOCUMENTS

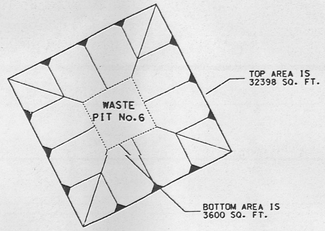
2. THE GEOMETRIC CONFIGURATIONS, THE LINER THICKNESSES, AND THE BOTTOM ELEVATIONS OF THE WASTE PITS WERE DETERMINED FROM THE BEST AVAILABLE DATA AT THIS TIME. THIS DATA WAS GATHERED FROM CONSTRUCTION, AS-BUILT, SURVEY, AND FEASIBILITY STUDY DRAWINGS (1/31/92, REV 1), AND FROM THE EXISTING PLANT ENGINEERING FILES.
   THE DIKE CREST SHOWN AROUND THE WASTE PITS REPRESENTS THOSE BUILT AT THE TIME OF CONSTRUCTION. MOST OF THE DIKES HAVE BEEN BURIED WITH COVER MATERIAL OF DIFFERENT THICKNESSES.

3. SAND BAGS WERE PLACED ON BOTTOM OF PIT 6 TO REDUCE THE PROBABILITY OF PUNCTURING LINER. PER MONTHLY PROJECT CP77-2, 12-1-79 ENTRY, PLANT 5 SLAG FINES WERE DUMPED FROM UNLOADING PAD(ON WEST SIDE) TO SERVE AS A PROTECTIVE SHIELD WHEN DUMPING LARGER WASTE INTO THE PIT.

4. A LETTER DATED JUNE 22, 1979 INDICATE THAT ENGINEERING RECOMMENDED THAT A 2'-0" THICK LAYER OF RAFFINATE FROM PIT #5 BE PLACED OVER THE PIT LINER. ALTHOUGH THE ENGINEER' S MONTHLY PROJECT RECORD DOES NOT INDICAT THEY DID SO. (CP77-2)

5. PER CORRESPONDENCE BETWEEN BEN T. YOUNG AND MR. G. HUEY (NLO-ENGINEEERING) DATED 5-11-79 STATES THE CONCERN WITH THESE SPRINGS AND POSSIBLE SOLLUTIONS. CHANGE ORDER DATED 1-31-1979 ORDERS PLACEMENT OF HARDBOARD (CP77-2)

6. NOT SHOWN ON THE PLAN IS THE LINER SHEET LAYOUT BY AMERICAN HYDROTECH, INC. SEE DWG 21A-5500-M-00258 FOR DETAILS



CONTRUCTED: SEPTEMBER 1,1978 - JUNE 1, 1979 COST: $127,654

IN USE: JUNE 1979 - MARCH 1985

CONSTRUCTION: PIT 6 WAS CONSTRUCTED IN THE SAME FASHION AS PIT 5, WITH A 60 MIL EPDM HYDROSEAL LINER FROM AMERICAN HYDROTECH. DURING EXCAVATION WATER PERCOLATION WAS ENCOUNTERED.

DIMENSIONS: MAXIMUM DEPTH = 24 FEET; VOLUME = 14,000 CU.YDS.

PIT OPERATION: CONTAMINATED SOLID WASTES ARE DUMPED INTO PIT 6 AND THEN BULLDOZED OR CLAM-SHELLED INTO THE CENTER OF THE PIT. ONLY NON-COARSE, NON-PYROPHORIC WASTES HAVE BEEN PLACED IN THE PIT AS OF MARCH, 1985. COLLECTED RAINFALL IS PUMPED VIA PORTABLE PUMP AND FIREHOSE TO A CONNECTION LOCATED ON THE SOUTHERN BERM OF PIT 5. WERE IT TRAVELS IN AN EXISTING UNDERGROUND 6" LINE BACK TO THE GENERAL SUMP.

PIT CONTENTS: PIT 6 HAS THE FOLLOWING RADIOACTIVE WASTES: DEPLETED SLAG, SCRAP GREEN SALT, PROCESS RESIDUES, AND FILTER CAKE.

COMMENTS: FILLING OPERATIONS OF PIT 6 WERE DONE FROM EAST AND WEST CONCRETE PADS.

DATA SOURCE: "FMPC WASTE INVENTORY DATA" MARCH 12, 1985

LEGEND

- GLACIAL OVERBURDEN
- CLAY LINER
- FILL SOIL
- SAND AND/OR GRAVEL
- SOIL MIXED WITH WASTE
- WASTE
- PIT OUTLINE COVERED
- PIT OUTLINE DIKE
- PIT OUTLINE BOTTOM
- SLOPE
- 580 MAJOR CONTOUR
- FENCE
- RAILROAD
- PAVED ROAD
- GRAVEL ROAD
- POST INDICATOR VALVE (PIV)
- FIRE HYDRANT (FH)
- MANHOLE (MH)
- CATCH BASIN (CB)
- AND POWER POLE
- VALVE BOX
- MONITORING WELL

0 15 30 75 150
SCALE IN FEET

1992 PHOTOGRAMMETRY
PREPARED BY: WOOLPERT CONSULTANTS

WASTE PITS GEOMETRIC CONFIGURATION
PREPARED BY: PARSONS

DO NOT SCALE REDUCED DRAWING

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.

REF. DWG. NO.
21A-5500-G-00258
75X-5900-G-00239
75X-5900-G-00247
21A-5500-G-00222

NOTE:
FERMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS ± 1/16
ANGLES ± 0° - 30'
DECIMALS
.X ± 0.1
.XX ± 0.03
.XXX ± 0.005
.XXXX ± 0.0030
DWG. RELEASE DATE

APPROVALS				
CIVIL & STR.			SAFETY ENG.	
ELECTRICAL			MAINTENANCE	
ENGINEER			Q.A.	
INSTRUMENT			FIRE PROTECT.	
MECHANICAL			WASTE MANAGE	
			SECURITY	
			CRU	
CHECKED	JGP			
APPROVLD	[illegible]	11/93		

FERNALD ENVIRONMENTAL RESTORATION MANAGEMENT CORPORATION
FERMCO
Fernald
Environmental Management Project
U.S. DEPARTMENT OF ENERGY

CRU-1 WASTE PITS AREA

CERCLA/RCRA UNIT ONE AREA
WASTE PIT No.6
HISTORICAL CONFIGURATION
SCALE: 1"=30'-0"

RES 2080
DATE 10 MAR 93
DRAWN M.E. TILLMAN

21A-5500-G-00257 | 0

FILE NAME: /res2080/cru1db010.dgn

cru1db010.m(4813.ws2) jim@ws2. Fri Oct 29 08:47:23 EDT 1993