



Department of Energy  
Richland Operations Office  
P.O. Box 550  
Richland, Washington 99352

Incoming Ltr# 9601348

MAY 17 1996

96-EAP-103

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200 Area Unit Supervisor  
Nuclear Waste Program  
State of Washington  
Department of Ecology  
1315 West Fourth Avenue  
Kennewick, Washington 99336-6018

Mr. Joseph J. Witczak  
Unit Supervisor  
Regulatory and Technical Support  
Nuclear Waste Program  
State of Washington  
Department of Ecology  
P.O. Box 47600  
Olympia, Washington 98504-7600

Dear Messrs. Jaraysi and Witczak:

HANFORD FACILITY DANGEROUS WASTE PART A PERMIT APPLICATION FORM 3, FOR THE PLUTONIUM URANIUM EXTRACTION PLANT, REVISION 7 (WA7890008967) (TSD: TS-2-6)

Enclosed is the Hanford Facility Dangerous Waste Part A Permit Application (Part A), Form 3, for the Plutonium Uranium Extraction (PUREX) Plant, Revision 7. The PUREX Plant is located in the 200 East Area of the Hanford Facility and was used for the recovery of plutonium and uranium from irradiated reactor fuel.

The Part A, Form 3, has been revised to expand greater-than-90-day tank storage capacity to address the addition of four existing tanks to Process Code S02 (Storage-Tank). Tanks F4, M2, Q21, and Q22 have been added to the Part A, Form 3, following sample analyses that showed the contents of the tanks exhibit the characteristic of corrosivity per Washington Administrative Code (WAC) 173-303-90. The analysis of the contents of these tanks was performed as a part of PUREX Plant deactivation activities.

The Part A, Form 3, also has been revised to add tanks Q21 and Q22 to Process Code T01 (Treatment-Tank). The addition of the two tanks has been done to reflect the one-time treatment (neutralization) and transfer of the waste to the Double-Shell Tank System.

In addition, the PUREX Plant treatment, storage, and/or disposal (TSD) unit boundary has been expanded to include Q Cell and M Cell. The federal Process Code designation for Containment Building storage (S05) has been changed to reflect the new federal Process Code designation for Containment Building storage (S06). State-only dangerous waste number WC02 (carcinogenic, dangerous waste) has been removed per the revised WAC 173-303.

MAY 17 1996

Messrs. Jaraysi and Witczak  
96-EAP-103

-2-

Incoming Ltr# 9601348

The revisions to the Part A, Form 3, have been made to support compliance efforts associated with the PUREX Plant deactivation. The changes to the Part A, Form 3, were made in compliance with WAC 173-303 and the Hanford Federal Facility Agreement and Consent Order. The WAC 173-303 requires the submittal of a revised Part A, Form 3, for expanded storage and treatment activities, a new Process Code designation, and the removal of dangerous waste numbers at a TSD unit under interim status.

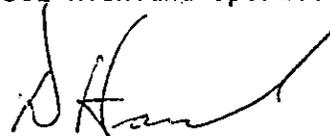
Should you have any questions regarding the PUREX Plant Part A, Form 3, please contact Ellen Mattlin, U.S. Department of Energy, Richland Operations Office, on (509) 376-2385 or Greg LeBaron, Westinghouse Hanford Company, on (509) 373-1792.

Sincerely,



James E. Rasmussen, Director  
Environmental Assurance, Permits,  
and Policy Division  
DOE Richland Operations Office

EAP:EMM



Douglas G. Hamrick, Director  
PUREX Transition Project  
Westinghouse Hanford Company

Enclosure:  
PUREX Plant Dangerous Waste  
Part A Permit Application,  
Form 3, Revision 7

cc w/encl:  
EDMC, H6-08  
R. Jim, YIN  
R. Julian, Ecology  
G. LeBaron, WHC  
D. Powaukee, NPT  
S. Price, WHC  
J. Wilkinson, CTUIR

cc w/o encl:  
D. Hamrick, WHC  
D. Sherwood, EPA

## CORRESPONDENCE DISTRIBUTION COVERSHEET

<b>Author</b> J. E. Rasmussen, RL D. G. Hamrick, WHC (C. P. Strand, WHC)	<b>Addressee</b> M. N. Jaraysi, Ecology J. J. Witczak, Ecology	<b>Correspondence No.</b> Incoming: 9601348 XREF: 9651802D
<b>Subject:</b> HANFORD FACILITY DANGEROUS WASTE PART A PERMIT APPLICATION, FORM 3, FOR THE PLUTONIUM-URANIUM EXTRACTION PLANT, REVISION 7 (WA7890008967) (TSD: TS-2-6)		

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		D. G. Hamrick, Assignee	S6-15	
		D. G. Harlow	S6-19	
		G. J. LeBaron	S6-19	X
		S. M. Price	H6-23	
		M. J. Stephenson	H6-20	
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		B. D. Williamson	B3-15	
		C. D. Wollam	S6-22	
		RCRA File	H6-23	X
		CPS File/LB	H6-24	X

Please print or type in the unshaded areas only  
(fill-in areas are spaced for elite type, i.e., 12 character/inch).

<b>FORM</b> <b>3</b>	<b>DANGEROUS WASTE PERMIT APPLICATION</b>	1. EPA/STATE I.D. NUMBER <table border="1" style="width:100%; border-collapse: collapse;"><tr><td>W</td><td>A</td><td>7</td><td>8</td><td>9</td><td>0</td><td>0</td><td>0</td><td>8</td><td>9</td><td>6</td><td>7</td></tr></table>	W	A	7	8	9	0	0	0	8	9	6	7
W	A	7	8	9	0	0	0	8	9	6	7			

FOR OFFICIAL USE ONLY		COMMENTS
APPLICATION APPROVED	DATE RECEIVED (mo., day, & yr.)	

II. FIRST OR REVISED APPLICATION  
Place an "X" in the appropriate box in A or B below (mark one box only) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA/STATE I.D. Number, or if this is a revised application, enter your facility's EPA/STATE I.D. Number in Section I above.

A. FIRST APPLICATION (place an "X" below and provide the appropriate date)

<input type="checkbox"/> 1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)	<input type="checkbox"/> 2. NEW FACILITY (Complete item below)
--	--

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th>MO.</th><th>DAY</th><th>YR.</th></tr> <tr><td style="text-align: center;">01</td><td style="text-align: center;">15</td><td style="text-align: center;">56</td></tr> </table>	MO.	DAY	YR.	01	15	56	<p>FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, &amp; yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)</p>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th>MO.</th><th>DAY</th><th>YR.</th></tr> <tr><td style="text-align: center;"> </td><td style="text-align: center;"> </td><td style="text-align: center;"> </td></tr> </table>	MO.	DAY	YR.			
MO.	DAY	YR.												
01	15	56												
MO.	DAY	YR.												

FOR NEW FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR IS EXPECTED TO BEGIN

B. REVISED APPLICATION (place an "X" below and complete Section I above)

<input checked="" type="checkbox"/> 1. FACILITY HAS AN INTERIM STATUS PERMIT	<input type="checkbox"/> 2. FACILITY HAS A FINAL PERMIT
--	---

III. PROCESSES - CODES AND CAPACITIES

A. PROCESS CODE - Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided on the (Section III-C).

B. PROCESS DESIGN CAPACITY - For each code entered in column A enter the capacity of the process.

1. AMOUNT - Enter the amount.
2. UNIT OF MEASURE - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PRO-CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS	PRO-CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
<b>Storage:</b>			<b>Treatment:</b>		
CONTAINER (barrel, drum, etc)	S01	GALLONS OR LITERS	TANK	T01	GALLONS PER DAY OR LITERS PER DAY
TANK	S02	GALLONS OR LITERS	SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS	INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS	OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Section III-C.)	T04	GALLONS PER DAY OR LITERS PER DAY
<b>Disposal:</b>					
INJECTION WELL	D80	GALLONS OR LITERS			
LANDFILL	D81	ACRE-FEET (the volume that would cover one acre to a depth of one foot) OR HECTARE-METER			
LAND APPLICATION	D82	ACRES OR HECTARES			
OCEAN DISPOSAL	D83	GALLONS PER DAY OR LITERS PER DAY			
SURFACE IMPOUNDMENT	D84	GALLONS OR LITERS			

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET	A
LITERS	L	TONS PER HOUR	D	HECTARE-METER	F
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES	B
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES	Q
GALLONS PER DAY	U	LITERS PER HOUR	H		

EXAMPLE FOR COMPLETING SECTION III (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

LINE NUMBER	A. PRO-CESS CODE (from list above)	B. PROCESS DESIGN CAPACITY		FOR OFFICIAL USE ONLY	LINE NUMBER	A. PRO-CESS CODE (from list above)	B. PROCESS DESIGN CAPACITY		FOR OFFICIAL USE ONLY
		1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)				1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)	
X-1	S 0 2	600	G		5				
X-2	T 0 3	20	E		6				
1	T 0 1	392,167	V		7				
2	S 0 2	1,263,233	L		8				
3	S 0 6	434	C		9				
4					10				

Continued from the front.

III. PROCESSES (continued)

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESS (code "T04"). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

REFER TO FOLLOWING PAGES

IV. DESCRIPTION OF DANGEROUS WASTES

- A. DANGEROUS WASTE NUMBER - Enter the four digit number from Chapter 173-303 WAC for each listed dangerous waste you will handle. If you handle dangerous wastes which are not listed in Chapter 173-303 WAC, enter the four digit number(s) that describes the characteristics and/or the toxic contaminants of those dangerous wastes.
- B. ESTIMATED ANNUAL QUANTITY - For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.
- C. UNIT OF MEASURE - For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE		CODE	METRIC UNIT OF MEASURE		CODE
POUNDS	.....	P	KILOGRAMS	.....	K
TONS	.....	T	METRIC TONS	.....	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed dangerous waste: For each listed dangerous waste entered in column A select the code(s) from the list of process codes contained in Section III to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed dangerous wastes: For each characteristic or toxic contaminant entered in Column A, select the code(s) from the list of process codes contained in Section III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed dangerous wastes that possess that characteristic or toxic contaminant.

Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: DANGEROUS WASTES DESCRIBED BY MORE THAN ONE DANGEROUS WASTE NUMBER - Dangerous wastes that can be described by more than one Waste Number shall be described on the form as follows:

1. Select one of the Dangerous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other Dangerous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other Dangerous Waste Number that can be used to describe the dangerous waste.

EXAMPLE FOR COMPLETING SECTION IV (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. DANGEROUS WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES																	
	1. PROCESS CODES (enter)										2. PROCESS DESCRIPTION (if a code is not entered in D(1))													
X-1	K	0	5	4	900	P	T	0	3	D	8	0												
X-2	D	0	0	2	400	P	T	0	3	D	8	0												
X-3	D	0	0	1	100	P	T	0	3	D	8	0												
X-4	D	0	0	2			T	0	3	D	8	0												included with above

FORM 3 DANGEROUS WASTE PERMIT APPLICATION  
U.S. ENVIRONMENTAL PROTECTION AGENCY/STATE IDENTIFICATION NUMBER WA7890008967

Section III.C., Description of Process Codes Listed in Section III.A.

The Plutonium-Uranium Extraction (PUREX) Plant, constructed in 1956, is located in the southeast corner of the 200 East Area of the Hanford Facility. The PUREX Plant was used for the recovery of uranium and plutonium from irradiated reactor fuel. Liquid-liquid processes were used to separate the plutonium and uranium from fission products and to separate the plutonium from the uranium.

The PUREX Plant consists of the 202-A Building and various support structures. The 202-A Building is a reinforced concrete structure 306.3 meters (1,005 feet) long, 36.3 meters (119 feet) wide (at its maximum), and 30.5 meters (100 feet) high with approximately 12.2 meters (40 feet) of the height below grade. The 202-A Building consists of three main structural components: (1) a thick walled, concrete canyon containing remotely operated process equipment (in cells below grade); (2) the pipe and operating, sample, and storage galleries; and (3) an annex that includes offices, process control rooms, laboratories, and the building services.

The PUREX Plant is currently undergoing a transition phase where past process solutions will be either removed from the 202-A Building in bulk for treatment, storage, and/or disposal, or treated and stored until the waste is transferred to the Double-Shell Tank (DST) System. Dangerous waste activities at the PUREX Plant include the treatment and storage of regulated materials that support the transition of this treatment, storage, and/or disposal unit. Also, the 202-A Building may receive and temporarily stage mixed waste from onsite sources prior to storage in the PUREX Storage Tunnels.

The following are treatment and storage processes for the PUREX Plant.

101 Tank E5 [19,873 liter (5,250 gallon) design capacity] - mixed waste is treated with NaOH and NaNO<sub>2</sub> before sending the waste to the DST System.

The concentrator [E-F11; 9,804 liter (2,590 gallon) design capacity] and tank G7 [TK G7; 56,781 liter (15,000 gallon) design capacity]- Ammoniacal mixed waste was processed in the concentrator with the ammonia distillate going to the 216-A-36B Crib before September 1987. From September 1987 to March 1990, ammoniacal waste was collected in tank G7 and treated with NaOH and NaNO<sub>2</sub> before being transferred to the DST System. During PUREX Plant transition, the E-F11 may be used to minimize the volume of liquid waste sent to the DST System by evaporation of water from flush solutions (both regulated and nonregulated) with the distillate (nonregulated) being discharged to the atmosphere via the PUREX main stack (291-A-1). The concentrate generated in the E-F11 is treated with NaOH and NaNO<sub>2</sub> in tank F18 [19,798 liter (5,230 gallon) design capacity] or TK-G7 before transfer to the DST System. Tank G7 also will be used to treat the flush and other waste solutions before transferring them to the DST System during transition.

Section III.C., Description of Process Codes (continued)

Tank F15 [19,419 liter (5,130 gallon) design capacity] and tank F16 [19,870 liter (5,249 gallon) design capacity]- The mixed waste may be sent to the E-F11 for volume reduction. Residual liquids are treated with NaOH and NaNO<sub>2</sub> in tanks F15 or F18 before transfer to the DST System.

Tank F18 [19,798 liter (5,230 gallon) design capacity], tank U3 [31,124 liter (8,222 gallon) design capacity], and tank U4 [31,184 liter (8,238 gallon) design capacity] - The mixed waste is collected from all sections of the PUREX Plant (E-F11 bottoms, other vessels, sumps, sinks, drains, overflows, Laboratory waste) and treated with NaOH and NaNO<sub>2</sub> before being transferred to the DST System.

Tank Q21 [81 liter (21 gallon) design capacity] and tank Q22 [968 liter (256 gallon) design capacity] - During deactivation, nitric acid was treated with NaOH before being transferred to tank F18. The waste was then transferred to the DST System.

The total process design capacity for tank treatment is 392,167 liters (103,600 gallons) per day.

S02 Vessels storing mixed waste in the PUREX Plant are shown on the PUREX-Plant Vessel Table (page 5 of 21), which includes the vessel identification (ID) number, tank location, and tank capacity. The total process design capacity for tank storage is 1,263,233 liters (333,712 gallons).

S06 The designation S06 (containment building/storage) has been used to indicate that the solid mixed waste in the canyon and in F-Cell is stored in a containment building subject to the requirements of 40 CFR 265, Subpart DD. The solid mixed waste in the canyon may consist of contaminated discarded canyon process equipment, jumpers (or isolated components thereof) or other material from various onsite sources. The solid mixed waste in F-Cell consists mainly of concrete and tank dunnage corrosion products. The process design capacity of the storage areas in the canyon and in F-Cell is 434 cubic meters (567 cubic yards).

PUREX PLANT VESSEL TABLE

VESSEL ID	LOCATION	CAPACITY (LITERS)
TK-D5	D Cell	19,851
TK-E5	E Cell	19,873
TK-E6	E Cell	19,813
TK-F3	F Cell	19,964
TK-F4	F Cell	19,593
T-F5	F Cell	1,132
E-F11	F Cell	9,804
TK-F15	F Cell	19,419
TK-F16	F Cell	19,870
TK-F18	F Cell	19,798
TK-G1	G Cell	18,662
TK-G2	G Cell	7,064
T-G2	G Cell	8,248
TK-G5	G Cell	55,403
TK-G7	G Cell	50,827
TK-G8	G Cell	19,881
TK-H1	H Cell	19,593
T-H2	H Cell	7,003
E-H4	H Cell	10,137
TK-J1	J Cell	19,926
TK-J3	J Cell	19,911
T-J6	J Cell	6,057
T-J7	J Cell	6,730
TK-J21	J Cell	1,162
T-J22	J Cell	568
T-J23	J Cell	393
TK-K1	K Cell	19,828
T-K2	K Cell	5,194
T-K3	K Cell	6,507
TK-K6	K Cell	19,593
T-L2	L Cell	447
TK-L3	L Cell	488
T-L4	L Cell	139
TK-M2	M Cell	6,852
TK-Q21	Q Cell AMU*	81
TK-Q22	Q Cell AMU*	968
TK-R1	R Cell	18,121
TK-R2	R Cell	6,746
T-R2	R Cell	8,282
TK-R7	R Cell	35,174
TK-U3	U Cell	31,124
TK-U4	U Cell	31,184
TK-P4	203-A	402,930
TK-40	211-A	247,360
TK-156	AMU	1,533
Total Capacity		1,263,233.00

\* Q Cell AMU is located in the storage gallery (refer to the PUREX Plant cross section figure, page 12 of 21).

For conversion, apply the following:  
 liters to gallons - multiply liters by 0.26417

Continued from page 2.  
NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

I.D. NUMBER (entered from page 1)											
W A 7 8 9 0 0 0 8 9 6 7											
IV. DESCRIPTION OF DANGEROUS WASTES (continued)											
LINE NO.	A. DANGEROUS WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES				
	1	2	3	4			1. PROCESS CODES (enter)				2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	W	T	0	1	29,937,096*	K	T01	S02			Treatment - Chemical/Storage - Tank
2	W	T	0	2							
3	W	P	0	1							
4	W	P	0	2							
5	D	0	0	1							
6	through										
7	D	0	1	1							Included With Above
8	W	T	0	1	15,200*	K	S06				Containment Building/Storage
9	W	T	0	2							
10	D	0	0	5							
11	through										
12	D	0	0	8							
13	D	0	1	0							
14	D	0	1	1							Included With Above
<p>* The estimated annual quantities of waste listed above represents the maximum quantities of solid dangerous waste currently treated and stored at the PUREX Plant. Future closure activities might necessitate an increase in excess of these estimates and a permit application revision could be pursued as required by dangerous waste regulations.</p>											
18											
19											
20											
21											
22											
23											
24											
25											
26											

Continued from the front.

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM SECTION D(1) ON PAGE 3.

During PUREX operation, the following tanks were operated in the manner described below. Waste managed in these tanks was treated to DST standards before transferring the waste to storage.

- o Tank E5 contained (1) decladding waste consisting of  $NH_4F$ ,  $(NH_4)_2ZrF_6$ ,  $(NH_4)_2UF_6$ , and  $NH_4NO_3$ ; (2) metathesis solutions consisting of  $KOH$  and  $KF$ ; or (3) metathesis rinse and miscellaneous flushes with similar chemical makeups. Following treatment of these streams with  $NaOH$ , the resulting waste stream consisted mainly of  $NaF$ ,  $KF$ ,  $UO_2$ ,  $ZrO_2$ ,  $NH_3$ ,  $NH_4OH$ , and  $NaNO_2$ .
- o The concentrator (E-F11) bottoms, containing  $NH_4NO_3$  and  $NH_4OH$ , were transferred to tank F18.
- o Tanks F15 and F16 contained acid waste with  $HNO_3$  and possibly  $Al(NO_3)_3$ .
- o Tank F18 and tanks U3 and U4 received miscellaneous waste with a constantly changing composition consisting mainly of water and  $HNO_3$ .

During PUREX deactivation, all vessels (refer to PUREX Plant Vessel Table on page 5 of 21) may have received and stored dangerous waste solutions. Waste and flush solutions received in tanks E5, F15, F16, F18, G7, U3, and U4 are treated to DST standards before transferring the waste to storage. These solutions might also be concentrated in the E-F11 and/or treated prior to storage.

Solutions found in tanks Q21 and Q22 during deactivation were treated with  $NaOH$  to neutralize the solution before transfer to tank F18, where the solution was treated to DST standards, before being transferred to storage.

The PUREX Plant containment building stores material containing barium, cadmium, chromium, lead, silver, selenium and/or light mineral oil (W102) contained in oil absorbent material.

V. FACILITY DRAWING Refer to attached drawing.

All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).

VI. PHOTOGRAPHS Refer to attached photographs.

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage; treatment or disposal areas (see instructions for more detail).

VII. FACILITY GEOGRAPHIC LOCATION This information is provided on the attached drawings and photos.

LATITUDE (degrees, minutes, & seconds)	LONGITUDE (degrees, minutes, & seconds)

VIII. FACILITY OWNER

A. If the facility owner is also the facility operator as listed in Section VII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER				2. PHONE NO. (area code & no.)			
3. STREET OR P.O. BOX			4. CITY OR TOWN		5. ST.	6. ZIP CODE	

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME (print or type) John D. Wagoner, Manager U.S. Department of Energy Richland Operations Office	SIGNATURE 	DATE SIGNED 5/17/96
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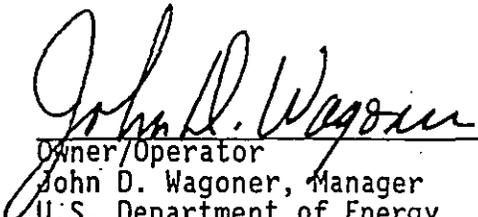
X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

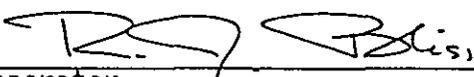
NAME (print or type) SEE ATTACHMENT	SIGNATURE	DATE SIGNED
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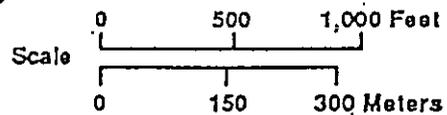
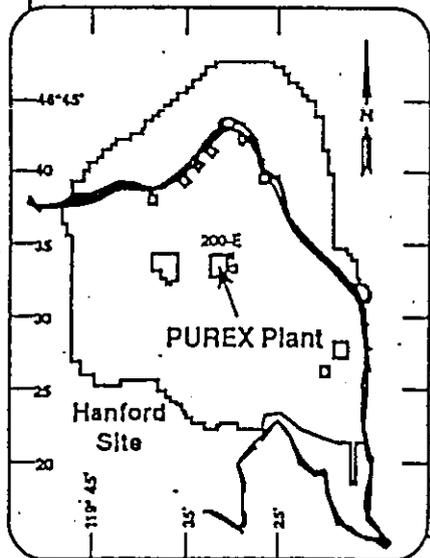
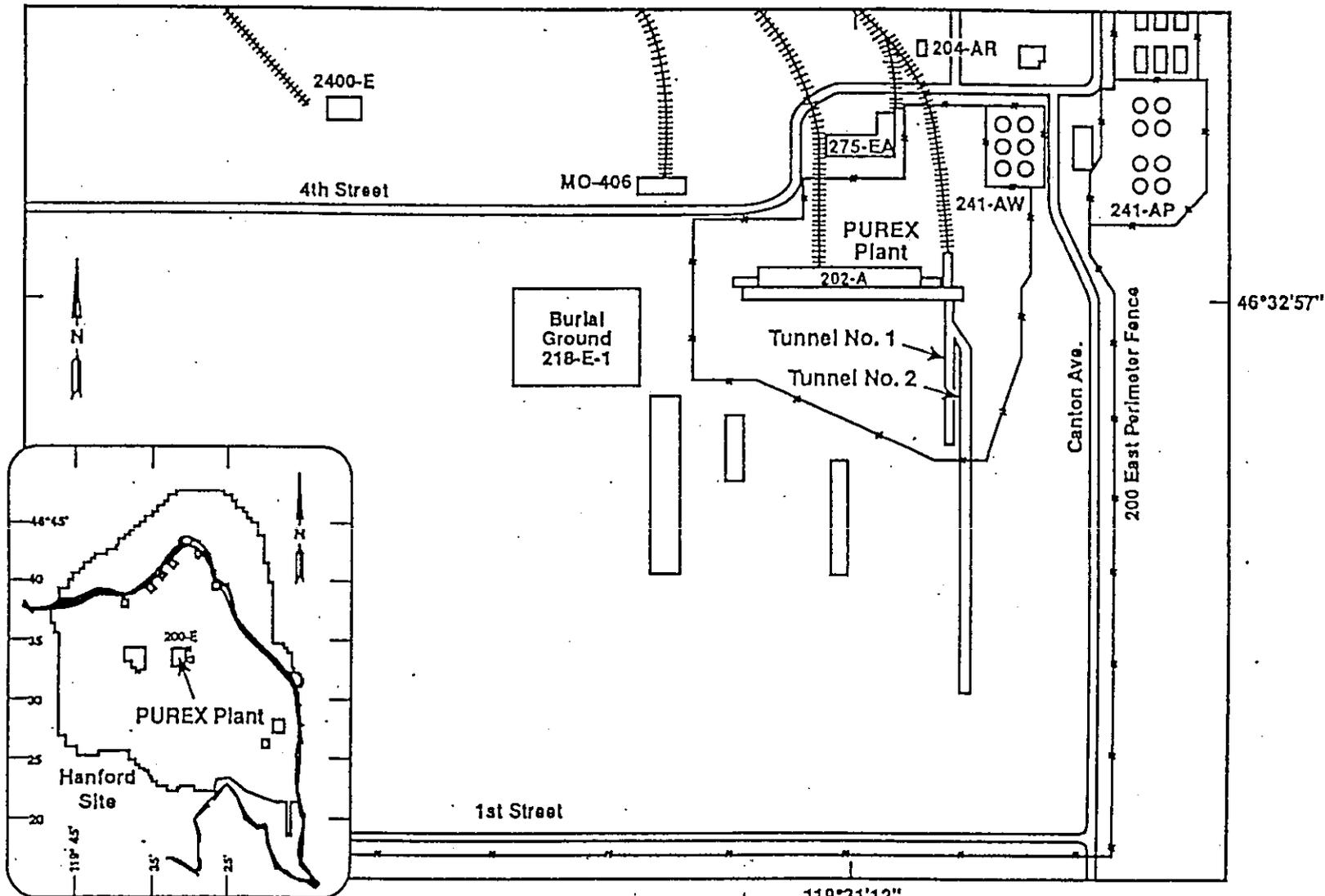
  
\_\_\_\_\_  
Owner/Operator  
John D. Wagoner, Manager  
U.S. Department of Energy  
Richland Operations Office

5/17/96  
Date

  
\_\_\_\_\_  
Co-operator  
R. J. Bliss, Vice President and Manager  
Transition Projects  
Westinghouse Hanford Company

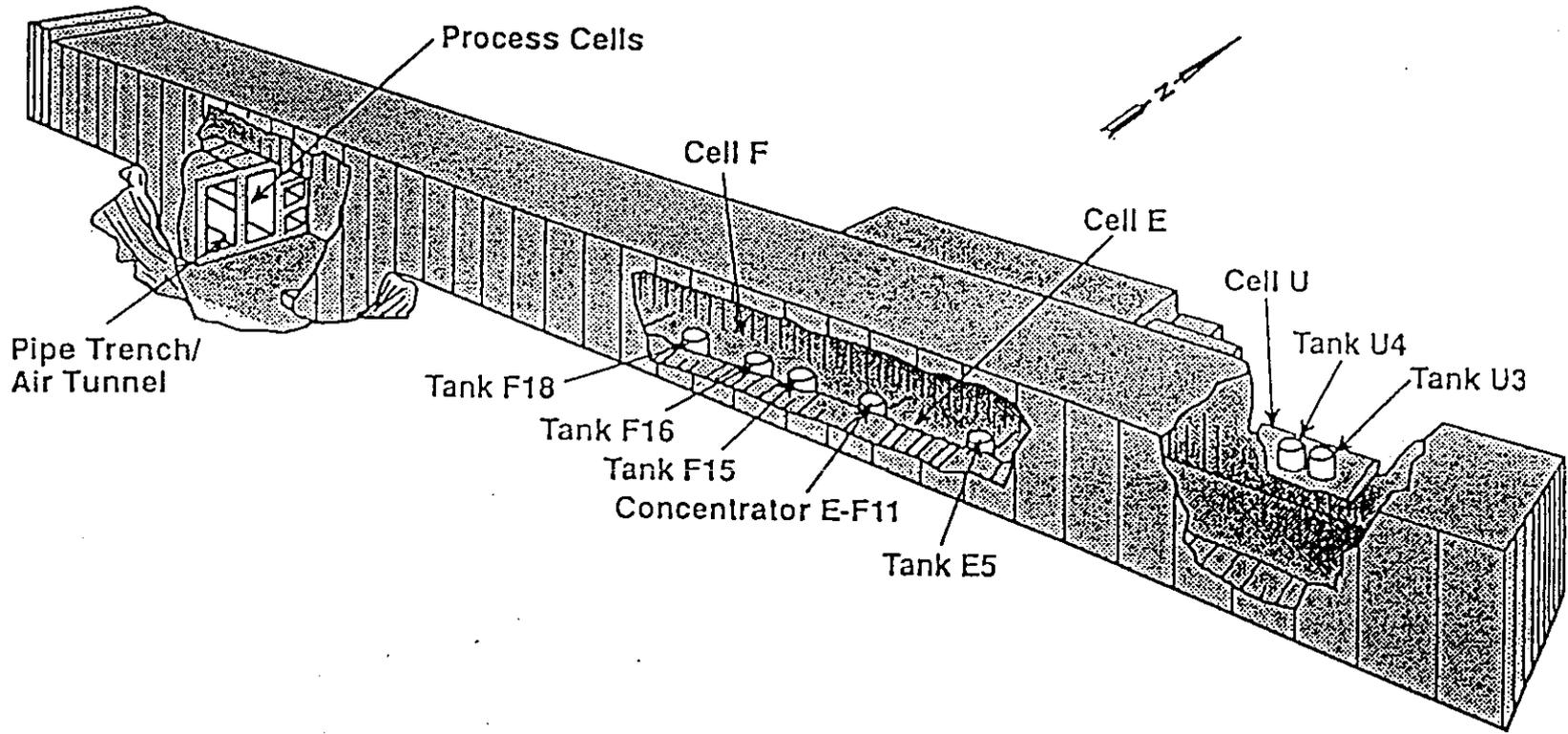
5-3-96  
Date

# PUREX Plant Site Plan



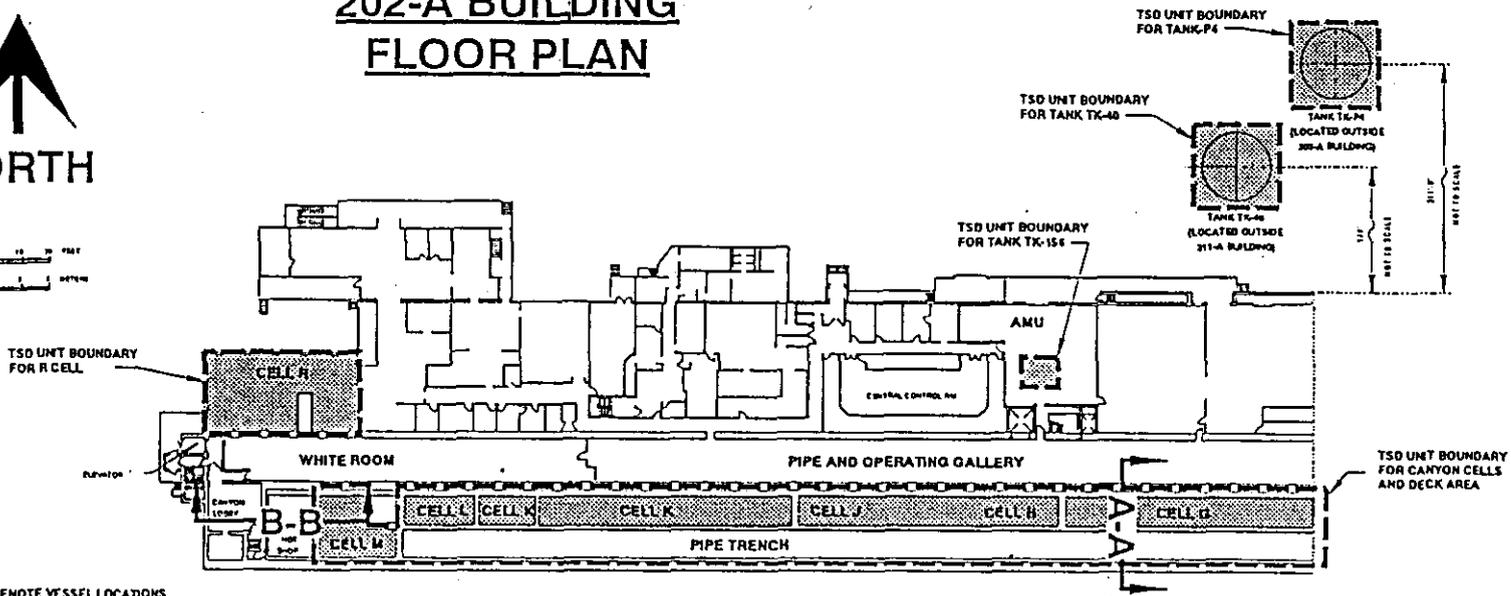
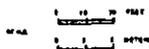
39209059.1

# PUREX Plant Cutaway View (202-A Building)

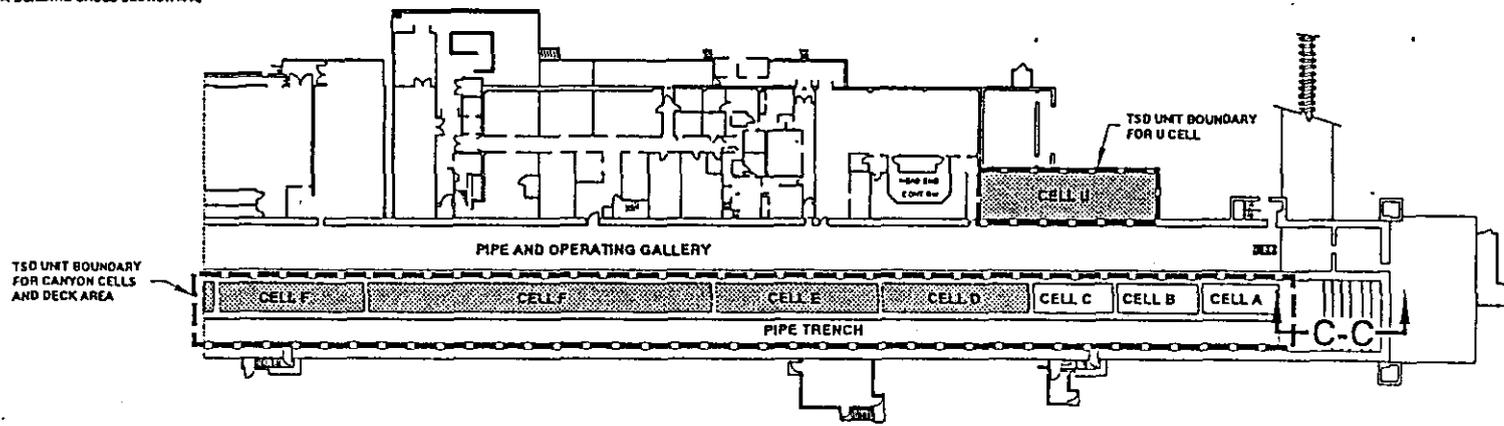


39201061.7

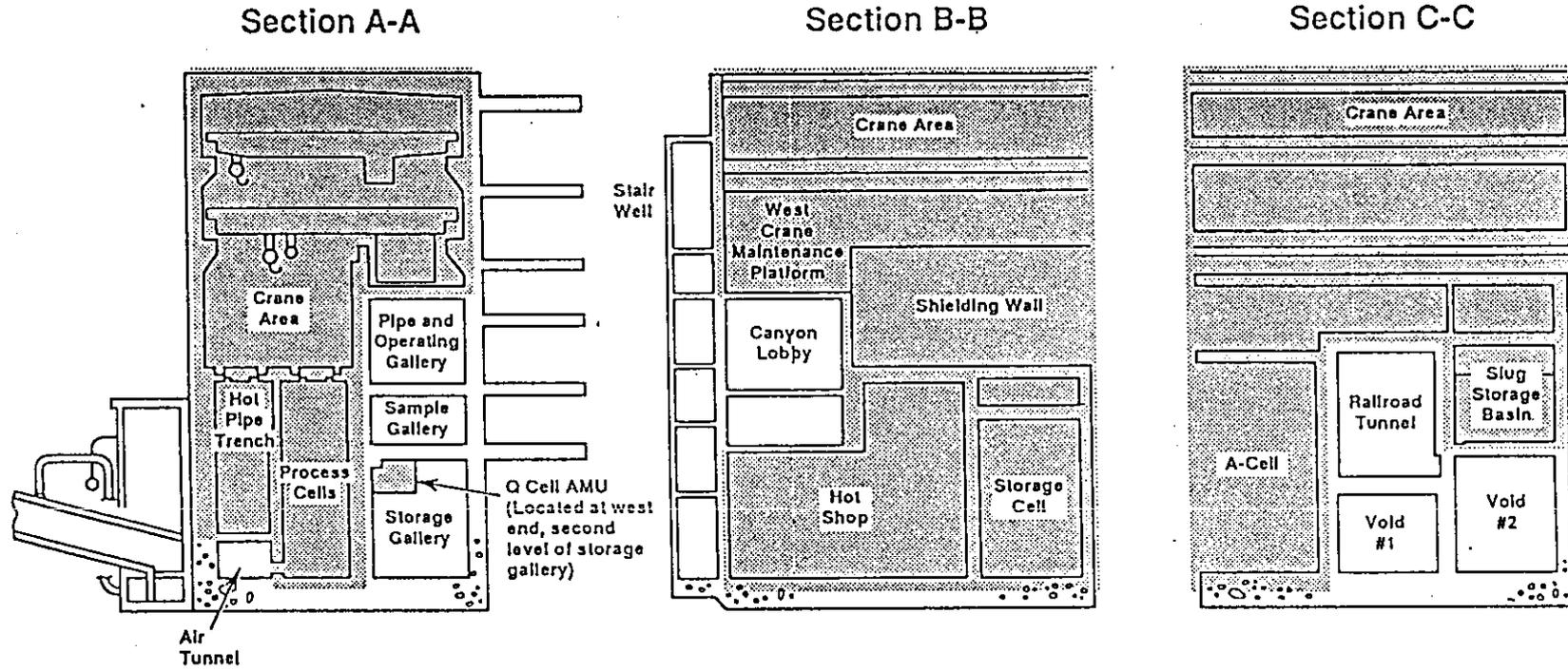
# 202-A BUILDING FLOOR PLAN



- NOTE 1: SHADED AREAS DENOTE VESSEL LOCATIONS. SEE PUREX VESSEL TABLE FOR SPECIFIC LOCATIONS.
- NOTE 2: FOR Q CELL LOCATION AND TSD UNIT BOUNDARY, REFER TO THE 202-A BUILDING CROSS SECTION A-A.



# 202-A Building Cross Sections



(Not to Scale)

Note: Shaded portions denote areas that are within the TSD boundary.

H96020325.1a

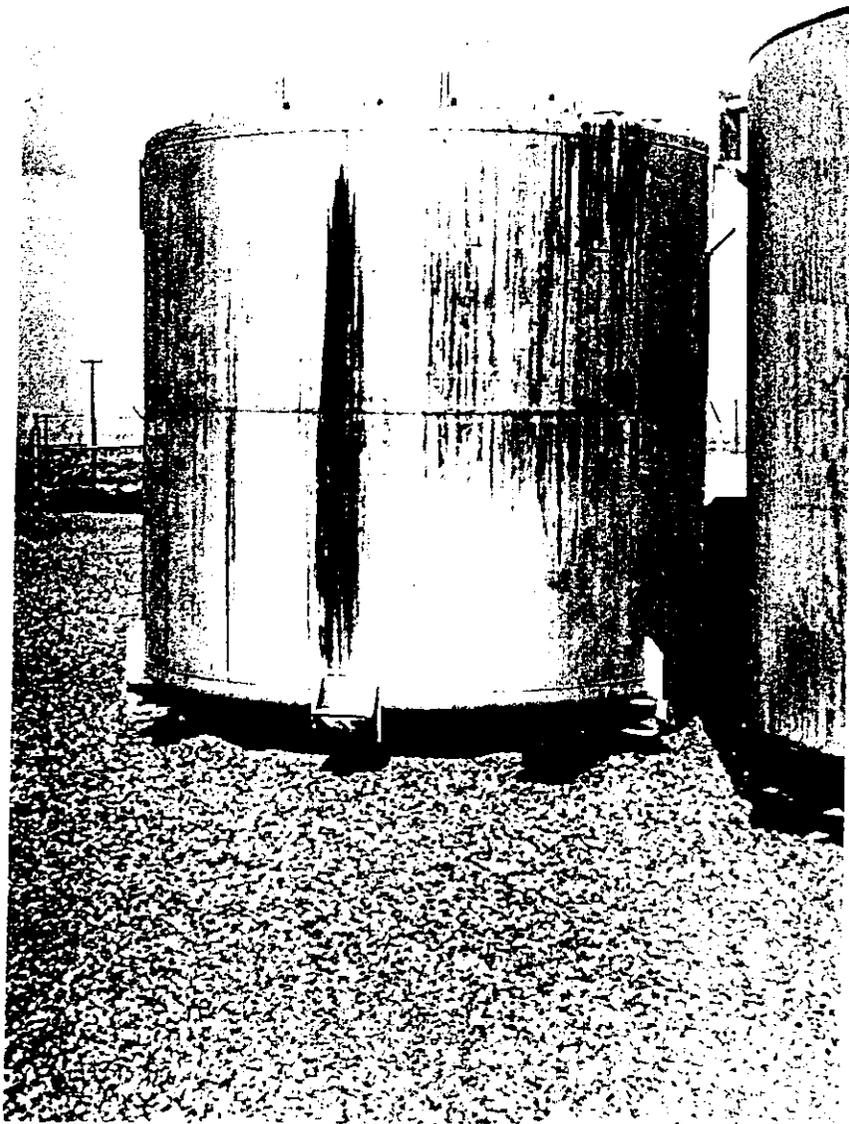
# PUREX PLANT (SOUTH SIDE)



46°32'57"  
119°31'12"

8706243-4CN  
(PHOTO TAKEN 1987)

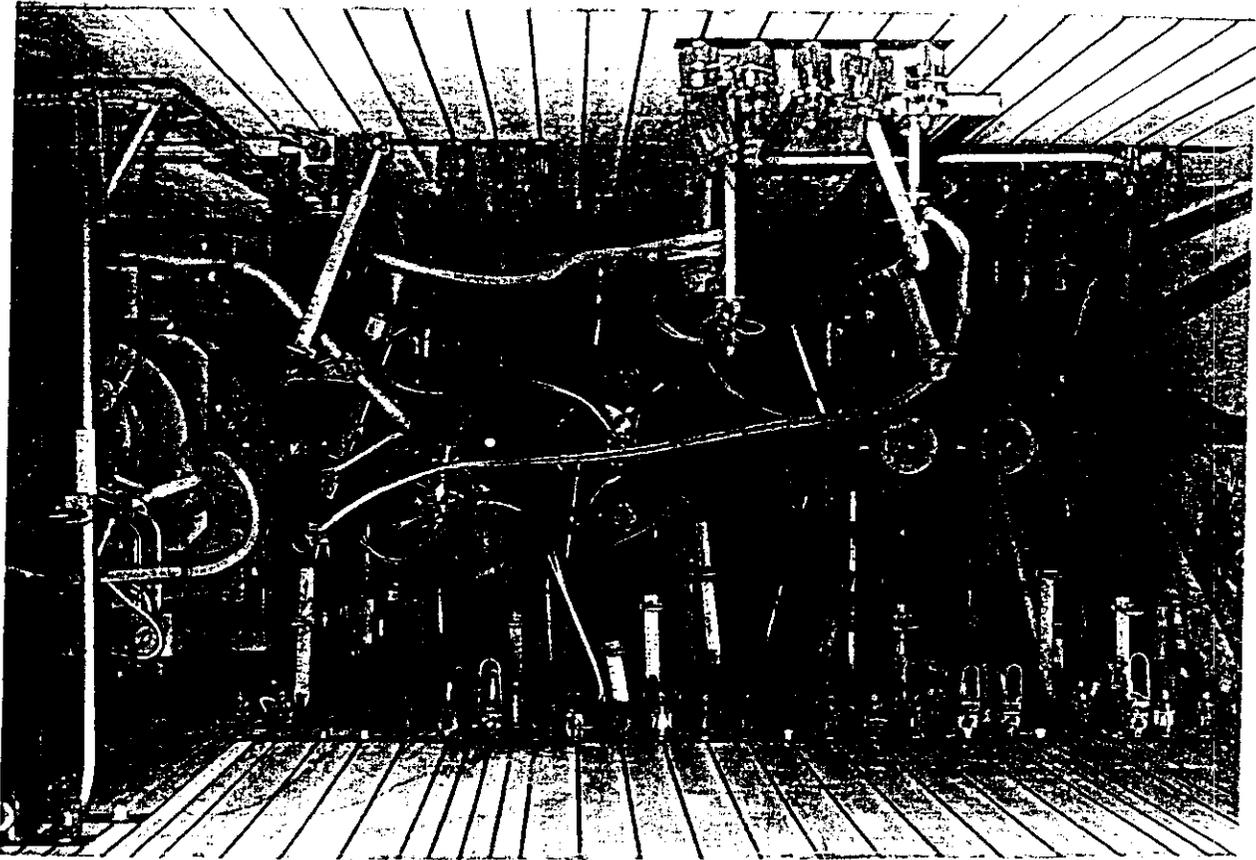
**STANDARD 5,000-GALLON  
TANK (TYPICAL OF E5, F15, F16,  
AND F18)**



8706243-5CN  
(PHOTO TAKEN 1987)

# TANK E5

Pipe Trench Wall - Top View

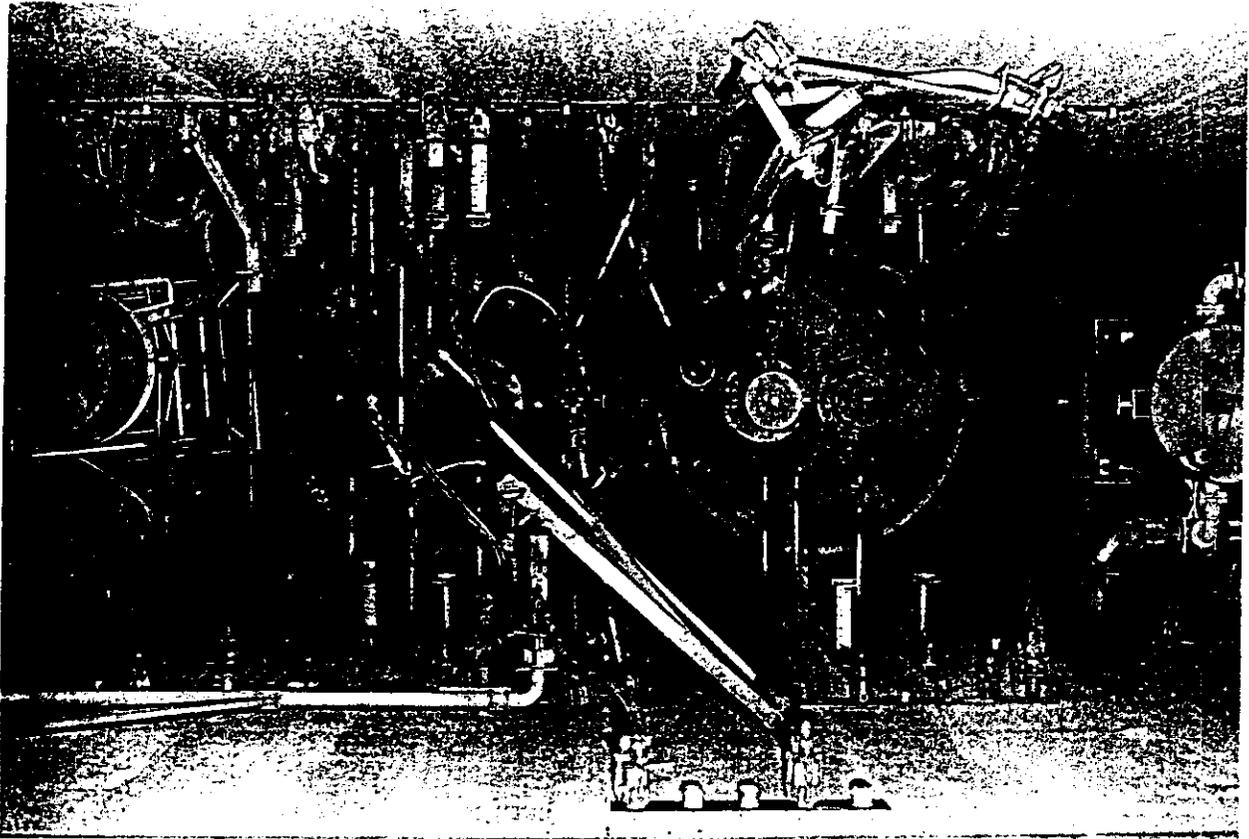


46°32'46"  
119°07'58"

099948-38CN  
(PHOTO TAKEN 1982)

# TANK F15 AND TANK F16

Pipe Trench Wall - Top View

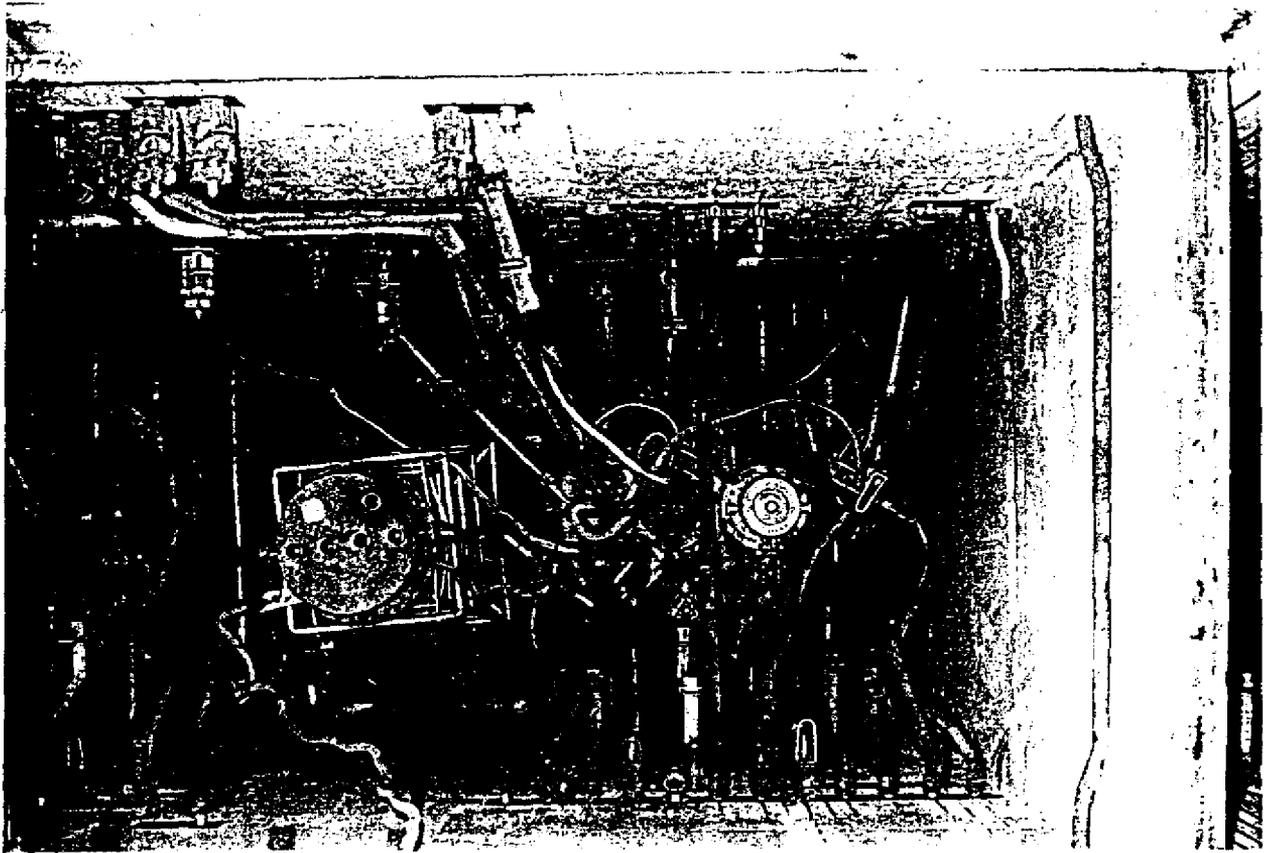


46°32'46"  
119°08'00"

099948-71CN  
(PHOTO TAKEN 1982)

# TANK F18

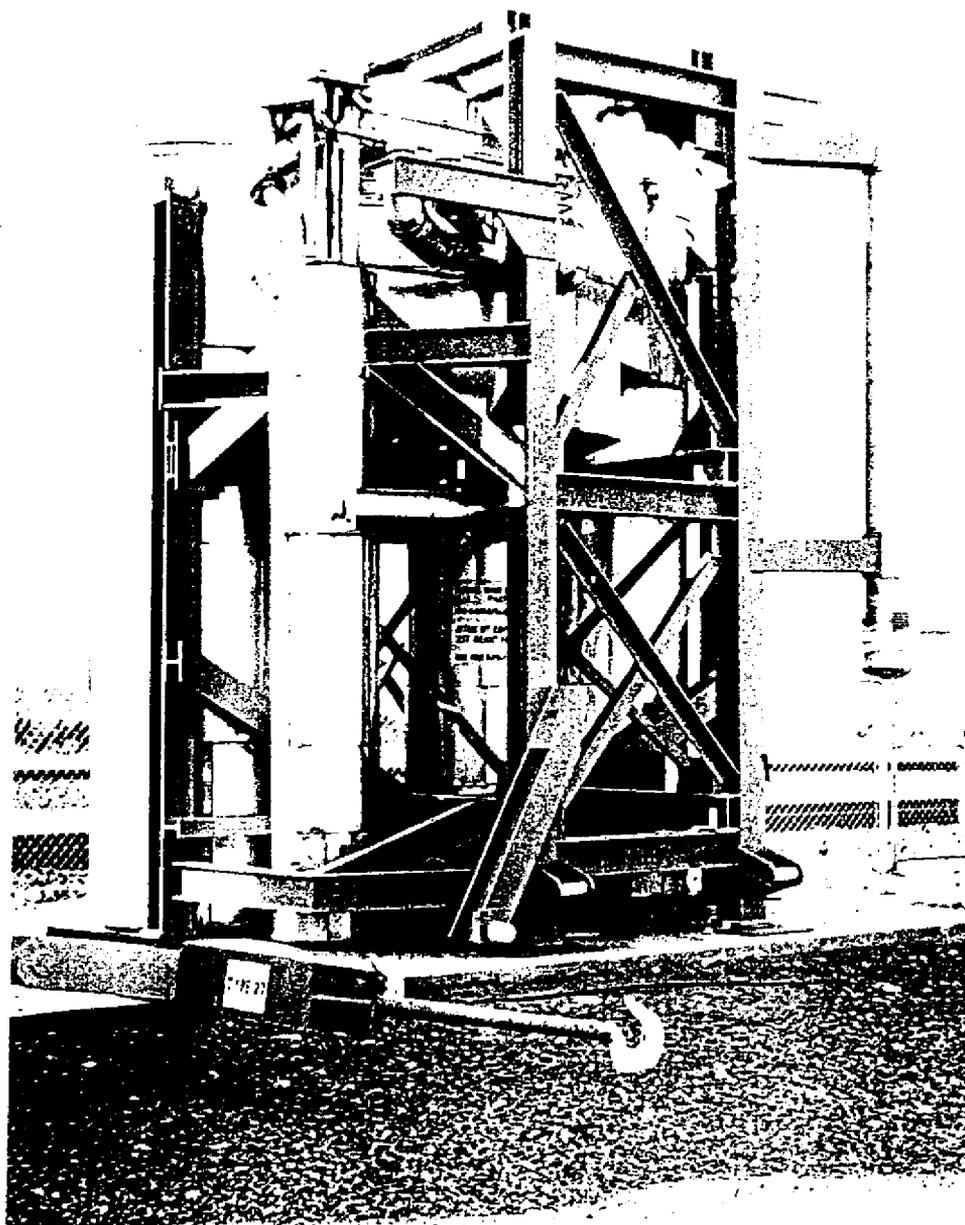
Pipe Trench Wall - Top View



46°32'46"  
119°08'01"

099948-74CN  
(PHOTO TAKEN 1982)

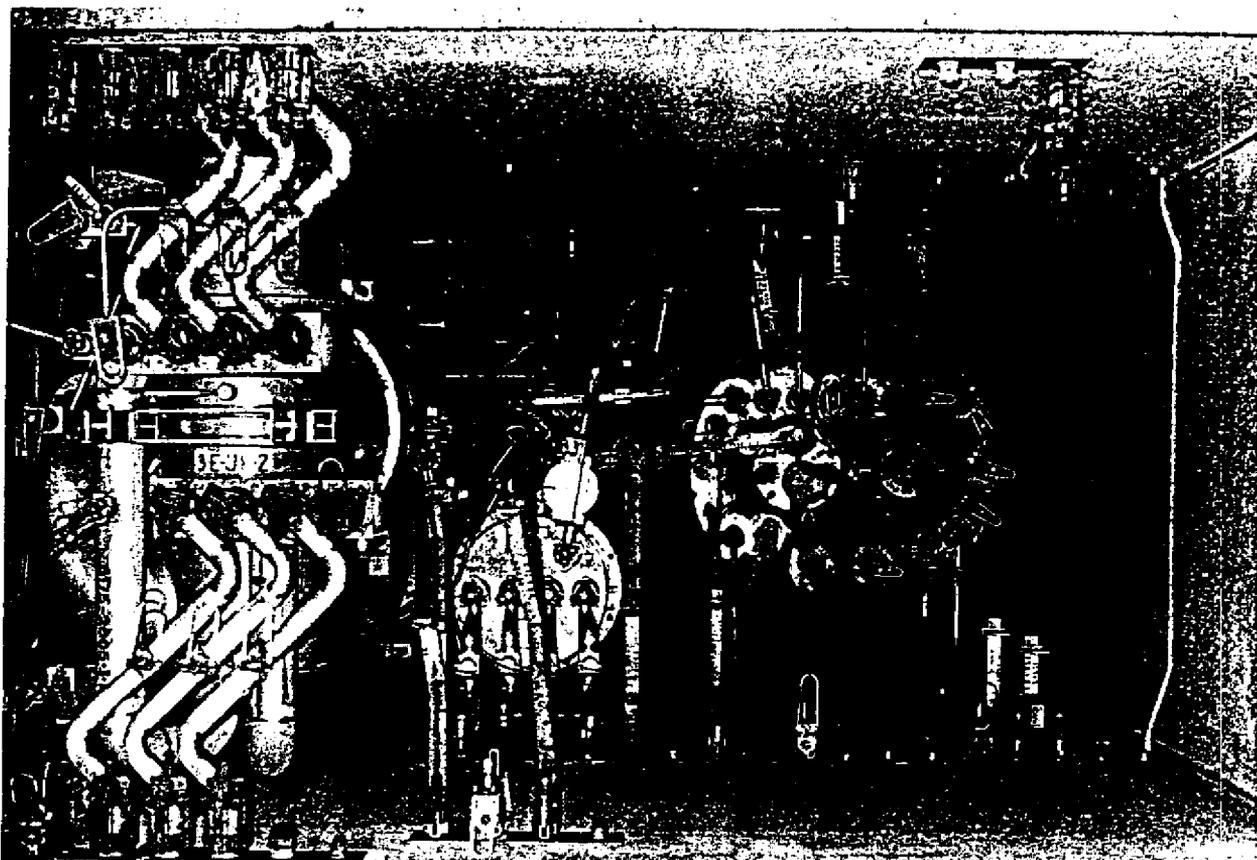
# E-F11 CONCENTRATOR



8706243-BCN  
(PHOTO TAKEN 1987)

# E-F11 CONCENTRATOR

Pipe Trench Wall - Top View

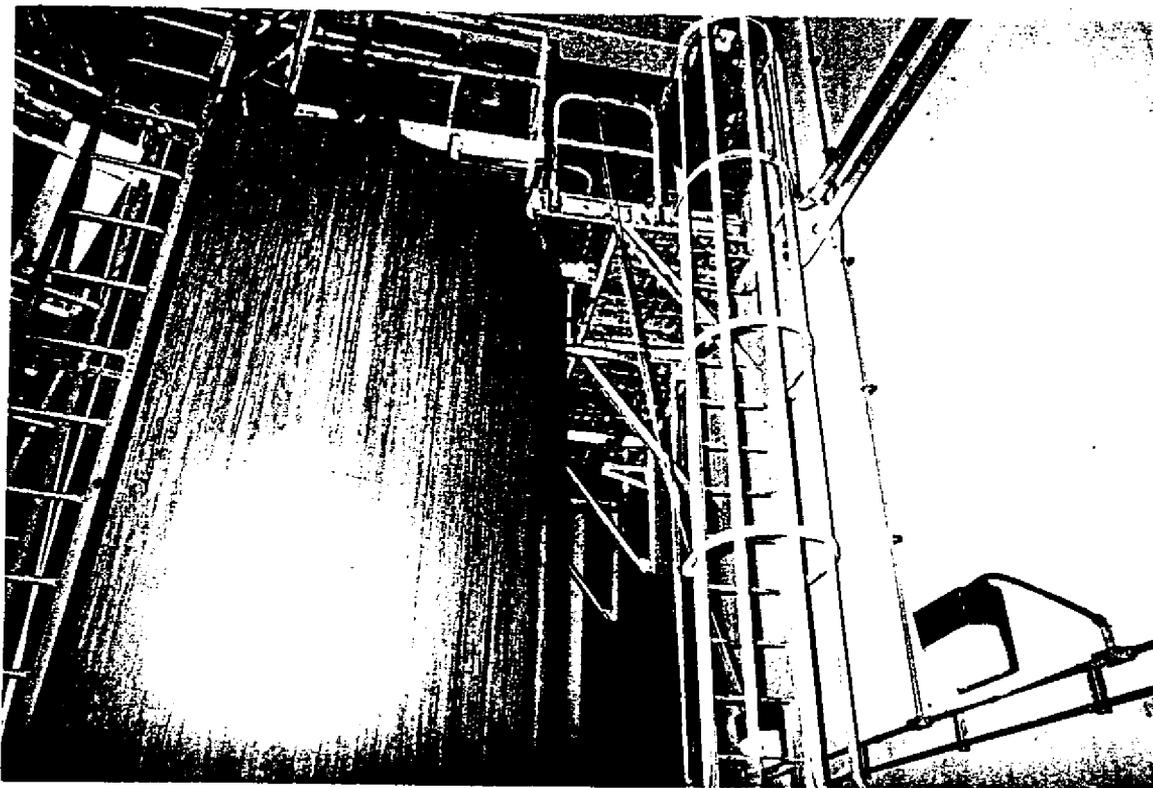


46°32'46"  
119°07'59"

099948-64CN  
(PHOTO TAKEN 1982)

# U CELL

Top of Tank U3 (Typical of Tank U4)



46°32'48"  
119°07'56"

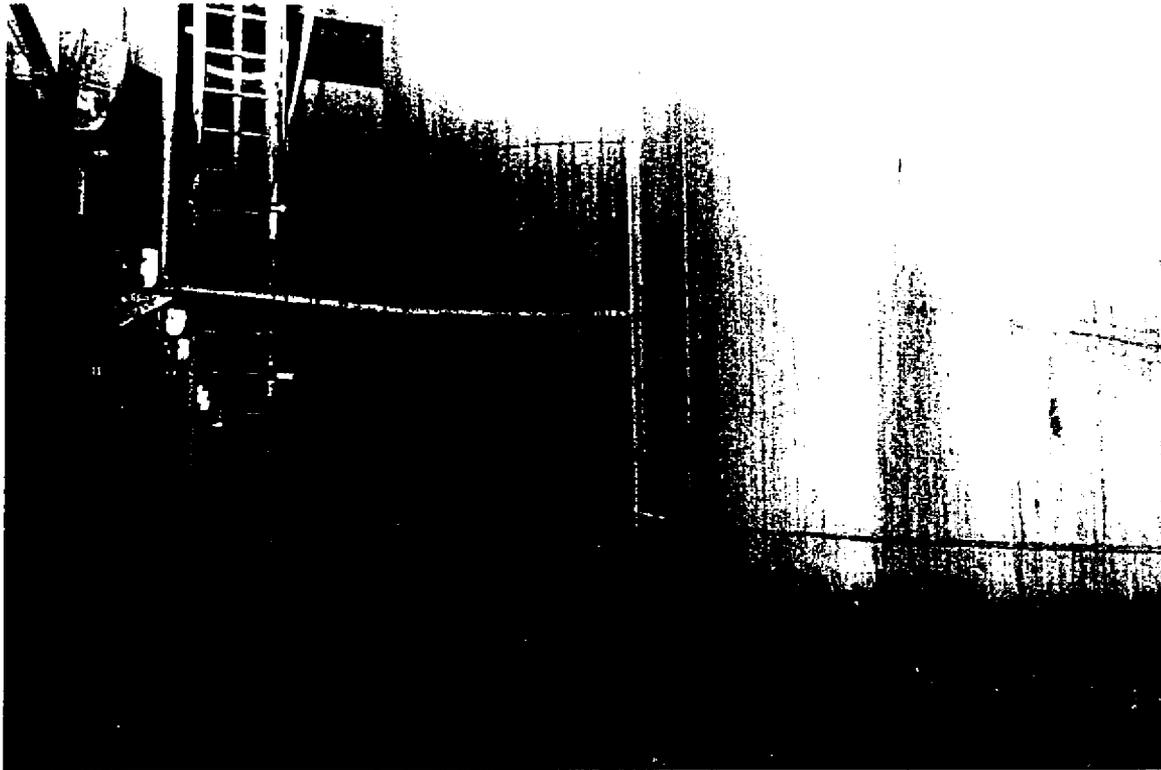
92102839-10CN  
(PHOTO TAKEN 1992)

# U CELL

Bottom of Tanks

Tank U3

Tank U4



46°32'48"  
119°07'56"

92102839-7CN  
(PHOTO TAKEN 1992)