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MANUAL REVISION INSTRUCTIONS

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SUSAN J WRAY
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Title: Hanford Site Dangerous Waste Part A Permit Application

Revision Release No.: 5

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E M Schroeder, Manager Management Standards N/A	Date	I have personally received the revisions identified for release in this package and assume full responsibility for updating my manual in accordance with instructions.	
P. A. Thurman, Manager Document Control PA Thurman	Date 8/09/90	Custodian	Date

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4.2.2.7	Hanford Central Waste Complex (m,a)	0	U
4.2.2.8	Single-Shell Tanks (m,a)	1 ♦	M
4.2.2.9	207-A South Retention Basin (m,c)	0	E
4.2.2.10	200 East Area Liquid Effluent Retention Facility (m,a)	0	2
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HANFORD SITE DANGEROUS WASTE PART A PERMIT APPLICATION

1.0 INTRODUCTION

This document contains the *Hanford Site Dangerous Waste Part A Permit Application*. The Hanford Site is a 560 square-mile tract of semiarid land operated by the U.S. Department of Energy, Richland Operations Office (DOE-RL). The Hanford Site has been in operation since 1943.

The single dangerous waste permit application number issued to the Hanford Site by the U.S. Environmental Protection Agency and the Washington State Department of Ecology is U.S. Environmental Protection Agency/State Identification Number WA 7890008967. This identification number encompasses a number of waste management units within the Hanford Site.

The current *Hanford Site Dangerous Waste Part A Permit Application* consists of two "Dangerous Waste Permit General Information, Form 1s" and 62 "Dangerous Waste Permit Application, Form 3s." Two Form 1s have been submitted because there are two contractors that are co-operators of dangerous waste units with the DOE-RL: the Westinghouse Hanford Company (Westinghouse Hanford) and Pacific Northwest Laboratory (PNL). A Form 3 has been submitted for each treatment storage, and/or disposal unit or group of units located on the Hanford Site.

This document consolidates the current revisions of all Hanford Site Part A Form 1s and Form 3s previously submitted to the EPA and Ecology into a single controlled document. This document has been designed to facilitate the insertion of revised material. The document will be revised in the future in response to regulatory agency comments and as needed to ensure compliance with applicable regulations. Each copy of this controlled document has a unique number to ensure that the recipients receive copies of the subsequent revisions. This document consists of four sections, including the "Introduction," Section 1.0.

Section 2.0 contains a table, titled "Dangerous Waste Regulations Permitting Status," which provides a brief history of the Form 3s. The table shows the initial submittal date of the Form 3s, the latest submittal date, and the current revision number. This table also identifies if, and when, a Part B permit application, closure plan, or postclosure permit application was submitted to Ecology.

Section 3.0 contains the two Form 1s for the Hanford Site.

Section 4.0 is divided into six sections containing Form 3s for the dangerous waste units in the 100, 200, 300, 400, 600, and 1100 Areas of the Hanford Site, respectively.

The "Contents" guides the reader through the document via a series of tab numbers. The "Contents" also identifies the current revision number, the dangerous waste unit type (treatment, storage, and/or disposal), waste type (dangerous or radioactive mixed waste), and unit status (active or closed) for each Form 3.

2.0 RESOURCE CONSERVATION AND RECOVERY ACT PERMITTING STATUS

This section contains a Resource Conservation and Recovery Act (RCRA) Permitting Status table and an explanation of the contents of the table.

Resource Conservation and Recovery Act (RCRA) Permitting Status. (sheet 1 of 2)

UNIT	ORG	AREA	PERMIT	TYPE	INITIAL	LATEST	REV	PARTB	CLOSURE	REV1	COMMENTS	CLASS
1324-N SURFACE IMPOUNDMENT	WHC	100	A/C	T	08/01/86	11/16/87	2	11/01/86		0		H
105-DR SODIUM FIRE FACILITY	WHC	100	A/C	TS	11/01/85	11/16/87	2	11/01/85		0	B/C	H
1706-KE WASTE TREATMENT SYSTEM	WHC	100	A/C	TS	08/01/86	11/16/87	2	04/01/87		0	B	M
183-H SOLAR EVAPORATION BASINS	WHC	100	A/C	TS	11/01/85	06/08/88	3		06/01/88	2		M
1301-N LIQUID WASTE DISPOSAL FAC.	WHC	100	A/C	D	08/01/86	02/02/88	3		04/01/87	0		M
1325-N LIQUID WASTE DISPOSAL FAC.	WHC	100	A/C	D	02/01/87	02/02/88	3		06/01/87	0		M
1324-NA PERCOLATION POND	WHC	100	A/C	TD	08/01/86	11/16/87	2		04/24/87	0		H
100-D PONDS	WHC	100	A/C	TD	08/01/86	11/16/87	2		04/01/87	0		H
221-T CONTAINMENT SYSTEM TEST FAC.	WHC	200W	A/C	T	11/01/85	11/16/87	2	11/01/85		0	B	H
ASHPIT SITE	WHC	200W	A/C	T	11/01/85	11/16/87	2	11/01/85		0	A	H
E-8 BORROW PIT	WHC	200E	A/C	T	11/01/85	11/16/87	2	11/01/85		0	A	H
242-A EVAPORATOR	WHC	200E	A/B	T	09/01/87	02/26/90	2					M
GROUT TREATMENT FACILITY	WHC	200E	A/B	TD	09/01/87	11/23/88	3	01/17/90		1		M
T-PLANT TREATMENT TANK	WHC	200W	A/B	T	12/01/87	12/03/87	0				B	M
241-Z TREATMENT TANK	WHC	200W	A/B	T	12/01/87	12/22/89	1				B	M
B PLANT	WHC	200E	A/B	TS	12/01/87	12/22/89	1					M
222-S LABORATORIES TANK AND PAD	WHC	200W	A/B	TS	12/01/87	12/03/87	0				B	M
204-AR WASTE UNLOADING STATION	WHC	200E	A/B	T	12/01/87	12/03/87	0				B	M
PUREX	WHC	200E	A/B	TS	12/01/87	10/18/89	2				B	M
HANFORD WASTE VITRIFICATION PLANT	WHC	200E	A/B	TS	05/01/88	10/31/89	2	07/31/89		0		M
2727-S STORAGE FACILITY	WHC	200W	A/C	S	11/01/85	11/16/87	2		02/10/89	3		H
DBL SHELL TANK FARMS	WHC	200EW	A/B	TS	09/01/87	02/05/90	3					M
HEXONE STORAGE AND TREATMENT	WHC	200W	A/C	TS	12/01/87	05/19/88	1					M
2727-WA SRE SODIUM STORAGE BUILDING	WHC	200W	A/B	S	12/01/87	12/03/87	0				B	M
PUREX TUNNELS 1 AND 2	WHC	200E	A/B	S	12/01/87	12/03/87	0					M
TRUSAF	WHC	200W	A/B	S	12/01/87	12/03/87	0					M
HANFORD CENTRAL WASTE COMPLEX	WHC	200W	A/B	TS	05/01/88	05/19/88	0					M
SINGLE-SHELL TANKS	WHC	200W	A/C	S	02/01/88	03/30/90	1					M
207-A SOUTH RETENTION BASIN	WHC	200E	A/C	S	02/26/90	02/26/90	0					M
LIQUID EFFLUENT RETENTION FACILITY	WHC	200E	A/B	S	02/26/90	02/26/90	0					M
TANK 241-CX-70	WHC	200E	A/C	S	07/10/90	07/10/90	0					M
LOW-LEVEL BURIAL GROUNDS	WHC	200EW	A/B/C	D	11/01/85	10/20/89	5	12/29/89		0		M
216-S-10 POND AND DITCH	WHC	200W	A/C	D	02/01/87	11/16/87	2		06/01/87	0		M
2101-M POND	WHC	200E	A/C	D	08/01/86	11/16/87	2		09/29/89	0		H
216-A-29 DITCH	WHC	200E	A/C	TD	08/01/86	11/16/87	2		04/01/87	0		M
216-B-3 POND	WHC	200E	A/C	TD	08/01/86	03/21/90	3		03/30/90	0		M
216-B-63 TRENCH	WHC	200E	A/C	TD	08/01/86	11/16/87	2		04/01/87	0		M
216-A-10 CRIB	WHC	200E	A/C	D	08/01/87	02/02/88	2				B	M
216-U-12 CRIB	WHC	200W	A/C	D	08/01/87	02/02/88	2				B	M
216-A-36B CRIB	WHC	200E	A/C	D	02/01/88	02/02/88	0		02/01/88	0		M

Resource Conservation and Recovery Act (RCRA) Permitting Status. (sheet 2 of 2)

UNIT	ORG	AREA	PERMIT	TYPE	INITIAL	LATEST	REV	PARTB	CLOSURE	REV1	COMMENTS	CLASS
216-A-37-1 CRIB	WHC	200E	A/C	D	02/26/90	02/26/90	0					M
3718-F ALKALI METAL TREATMENT FAC.	WHC	300	A/B	TS	11/01/85	11/16/87	2	11/06/85		0		H
324 SODIUM REMOVAL PILOT PLANT	PNL	300	A/B	T	11/01/85	05/19/88	3	11/01/85		0	B	M
304 CONCRETION FACILITY	WHC	300	A/C	TS	08/01/86	06/21/90	4		04/30/90	0		M
300 AREA SOLVENT EVAPORATOR	WHC	300	A/C	T	11/01/85	03/27/90	4		02/10/89	3		M
300 AREA WASTE ACID TREATMENT	WHC	300	A/B/C	TS	09/01/87	06/29/90	3		06/29/90	0		M
303-M OXIDE FACILITY	WHC	300	A/B	T	05/01/88	05/19/88	0					M
325 WASTE TREATMENT FACILITY	PNL	300	A/B	T	05/01/88	05/19/88	0					M
BIOLOGICAL TREATMENT TEST FACS.	PNL	300	A/B	O	05/01/88	05/19/88	0					M
PHYSICAL & CHEMICAL TREATMENT FACS.	PNL	300	A/B	O	05/01/88	05/19/88	0					M
THERMAL TREATMENT TEST FACILITIES	PNL	300	A/B	O	05/01/88	05/19/88	0					M
311 TANKS	WHC	300	A/B	S		11/16/87	1				B	M
303-K STORAGE FACILITY	WHC	300	A/C	S	08/01/87	06/21/90	3		04/30/90	0		M
305-B STORAGE FACILITY	PNL	300	A/B	TS	05/01/88	05/19/88	0	01/31/90		0		M
332 STORAGE FACILITY	PNL	300	A/B	S	05/01/88	05/19/88	0					M
300 AREA PROCESS TRENCHES	WHC	300	A/PC	D	11/01/85	11/16/87	2		11/06/85	0		M
MAINTENANCE AND STORAGE FACILITY	WHC	400	A/B	T	11/01/85	11/16/87	2	11/01/85		0		M
4843 ALKALI METAL STORAGE FACILITY	WHC	400	A/B	S	09/01/87	11/16/87	1					M
HANFORD PAT. ACAD. DEMOLITION SITE	WHC	600	A/B	T	11/01/85	11/16/87	2	11/01/85		0	A	H
616 STORAGE FACILITY	WHC	600	A/B	S	11/01/85	06/29/90	4	06/29/90		1		H
600 AREA PURGEWATER	WHC	600	A/B	TS	02/20/90	02/20/90	0					M
NONRAD DANGEROUS WASTE LANDFILL	WHC	600	A/C	D	11/01/85	11/16/87	2	11/06/85		0		H
SIMULATED HLW TREATMENT STORAGE	PNL	1100	A/C	TS	05/01/88	05/19/88	0		09/29/89			M

Explanation of 'Permitting Status Table'.

UNIT Name of unit that is designated for permitting as part of the Hanford Facility (EPA/State Identification Number WA7890008967).

ORG Name of organization (company) that has a contract to operate unit for the U.S. Department of Energy:

WHC -- Westinghouse Hanford Company.

PNL -- Pacific Northwest Laboratory.

AREA The area of the Hanford Site in which the unit is located:

100 -- 100 Area, includes N Reactor

200E -- 200 East Area, includes chemical processing such as PUREX

200W -- 200 West Area, includes chemical processing such as REDOX

200EW -- Parts of a unit are located in both the 200 East and the 200 West areas

300 -- 300 Area, includes research, development, and fuel fabrication

400 -- 400 Area, includes the Fast Flux Test Facility (FFTF)

500 -- Unused designation

600 -- 600 Area, includes nonradioactive dangerous waste storage and landfill units

1100 -- 1100 Area, includes maintenance and shipping units

PERMIT Type of RCRA permit application that is required to obtain the desired type of permit:

A -- Part A

B -- Part B

C -- Closure plan or permit

PC -- Postclosure plan.

TYPE Waste unit RCRA operational classification:

T -- Treatment

S -- Storage

D -- Disposal

O -- Other.

INITIAL Date the initial Part A permit application was submitted to the Washington State Department of Ecology:

08/01/88 -- month/day/year.

LATEST Date the latest Part A permit application was submitted to the Washington State Department of Ecology.

REV Last revision of the Part A permit application that was submitted to the Washington State Department of Ecology.

PART B Date the last Part B permit application was submitted to the Washington State Department of Ecology:

08/01/88 -- month/day/year.

CLOSURE Date the last closure or postclosure plan permit application was submitted to the Washington State Department of Ecology:

08/01/88 -- month/day/year.

COMMENTS A Three demolition sites formerly combined into one application.

B Application will be withdrawn.

C Subsequently determined that a closure plan would be prepared.

D Currently in design stage.

E Evaluating treatment by generator.

F Application may be withdrawn.

CLASS M Unit contains mixed radioactive waste and dangerous waste.

H Unit contains no radioactive waste. All units on this list contain dangerous waste.

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

FORM 3

DANGEROUS WASTE PERMIT APPLICATION

I. EPA/STATE I.D. NUMBER: W A 7 8 9 0 0 0 8 9 6 7

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (mo., day, & yr.)	COMMENTS

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)

☐ 1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)

* MO. DAY YR.

*See Attached Table 1

FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the dates in the list)

☐ 2. NEW FACILITY (Complete item below.)

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)

☒ 1. FACILITY HAS AN INTERIM STATUS PERMIT

☐ 2. FACILITY HAS A FINAL PERMIT

III. PROCESSES — CODES AND DESIGN 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	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
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

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
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

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

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. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S02	600	G		5				
X-2	T03	20	E		6				
1	S02	91,880,000	G		7				
2	T01	600,000	U		8				
3	S03	0.14	Y		9				
4					10				

Continued from the front

III. PROCESSES (continued)

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

See Following Page

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)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K054	900	P	T03 D80	
X-2	D002	400	P	T03 D80	
X-3	D001	100	P	T03 D80	
X-4	D002			T03 D80	included with above

 CONTINUE ON PAGE 3

III. Processes (continued)

S02,S03, T01 - One hundred forty-nine Single-Shell Tanks (S02) were built between 1943 and 1964 to store radioactive mixed waste generated at the Hanford Site. One hundred thirty-three of the Single-Shell Tanks are 75 feet in diameter with normal capacities of 500,000 to 1,000,000 gallons (100 series). Sixteen of the tanks are smaller units of a similar design with a 20 foot diameter and a capacity of 55,000 gallons (200 series). Table 1 lists tank capacities and descriptions. The Single-Shell Tanks collectively have a storage design capacity of 91,880,000 gallons.

Treatment of the waste in the Single-Shell Tank(s) occurs when the liquid waste is separated from the solid waste and is then pumped to the Double-Shell Tank Farm (T01). This process involves pumping the supernatant liquid waste from the Single-Shell Tank(s) at a design limited rate of 576,000 gallons in a 24 hour period. The remaining liquid waste in the salt well is pumped at a design limited rate of 14,400 gallons in a 24 hour period. These design limited rates are based on the simultaneous pumping of two Single-Shell Tanks in a 24 hour period. Ancillary equipment used for the transfer of liquid wastes consists of, 1) centrifugal pumps capable of pumping supernatant liquid waste at 200 gallons per minute, 2) induction pumps capable of pumping liquid waste from the salt well at 5 gallons per minute, and 3) associated valves and piping to the Double-Shell Tank Farm.

Associated with the Single-Shell Tanks are 53 inactive diversion boxes acting as waste piles (S03). It is estimated that approximately 50 pounds of radioactively contaminated waste lead counterbalances from inactive transfer jumpers are stored in each diversion box (worst case scenario) accounting for a total of 2,650 pounds or 0.14 cubic yards of waste lead in storage. A summary of the Single-Shell Tanks and corresponding inactive diversion boxes is provided in Table 2. All 53 inactive diversion boxes associated with the Single-Shell Tanks are presently isolated (weather covered).

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

I.D. NUMBER (enter from page 1): WA7890008967

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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	WT01	450,000,000	P	S02 T01	Tank Storage/Tank Treatment
2	D002				Included with above
3	D005				Included with above
4	D006				Included with above
5	D007				Included with above
6	D008				Included with above
7	D009				Included with above
8	D010				Included with above
9	D011				Included with above
10	F003				Included with above
11	D008	2,650	P	S03	Waste Pile Storage
12	WT01				Included with above
13					
14					
15					
16					
17					
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.

The radioactive mixed waste stored in the Single-Shell Tanks was generated by four major chemical processing operations: the Bismuth Phosphate (BiPo) process, the Reduction-Oxidation (REDOX) process, the Plutonium-Uranium Extraction (PUREX) process and the Tributyl Phosphate (TBP) process. Dangerous Waste Code F003 has been included due to the presence of methyl isobutyl ketone in the tank bottoms.

The waste codes listed under the description of dangerous wastes are based on a computer model and past process knowledge rather than chemical analysis of the waste itself. The waste quantity listed is based upon an average density of the waste calculated from the densities of twenty-six core samples taken of waste stored in various Single-Shell Tanks. The average density (12 lb/gallon) was then multiplied by the total volume of waste currently stored in the Single-Shell Tanks (36,836,000 gallons).

The quantity of radioactively contaminated waste lead counterbalances from inactive transfer jumpers that are stored in the diversion boxes is based on previous research of historical records. Due to the radiological hazards associated with individual inspection of the diversion boxes, a quantity of 50 pounds of lead was estimated for each box. This represents a conservative estimate as 50 pounds of lead is the maximum quantity of waste lead known to be in any one diversion box.

V. FACILITY 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

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 attached drawings and photos

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

VIII. FACILITY OWNER

[X] 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)*	SIGNATURE	DATE SIGNED
Michael J. Lawrence Manager, Richland Operations United States Department of Energy	Michael J. Lawrence	3/30/90

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)*	SIGNATURE	DATE SIGNED
SEE ATTACHMENT		

CONTINUE ON PAGE 5

Table 1
Single-Shell Tank Summary

TANK NUMBER	YEAR OF CONSTRUCTION	YEAR REMOVED[1] FROM SERVICE	OPERATING CAPACITY
241-A-101	1954-1955	1980	1,000,000
241-A-102	1954-1955	1980	1,000,000
241-A-103	1954-1955	1980	1,000,000
241-A-104	1954-1955	1975	1,000,000
241-A-105	1954-1955	1963	1,000,000
241-A-106	1954-1955	1980	1,000,000
241-AX-101	1963-1964	1980	1,000,000
241-AX-102	1963-1964	1980	1,000,000
241-AX-103	1963-1964	1980	1,000,000
241-AX-104	1963-1964	1978	1,000,000
241-B-101	1943-1944	1974	500,000
241-B-102	1943-1944	1978	500,000
241-B-103	1943-1944	1977	500,000
241-B-104	1943-1944	1972	500,000
241-B-105	1943-1944	1972	500,000
241-B-106	1943-1944	1977	500,000
241-B-107	1943-1944	1969	500,000
241-B-108	1943-1944	1977	500,000
241-B-109	1943-1944	1977	500,000
241-B-110	1943-1944	1971	500,000
241-B-111	1943-1944	1976	500,000
241-B-112	1943-1944	1977	500,000
241-B-201	1943-1944	1971	55,000
241-B-202	1943-1944	1977	55,000
241-B-203	1943-1944	1977	55,000
241-B-204	1943-1944	1977	55,000
241-BX-101	1946-1947	1972	500,000
241-BX-102	1946-1947	1971	500,000
241-BX-103	1946-1947	1977	500,000
241-BX-104	1946-1947	1980	500,000
241-BX-105	1946-1947	1980	500,000
241-BX-106	1946-1947	1971	500,000
241-BX-107	1946-1947	1977	500,000
241-BX-108	1946-1947	1974	500,000
241-BX-109	1946-1947	1974	500,000
241-BX-110	1946-1947	1977	500,000
241-BX-111	1946-1947	1977	500,000
241-BX-112	1946-1947	1977	500,000
241-BY-101	1948-1949	1971	750,000
241-BY-102	1948-1949	1977	750,000
241-BY-103	1948-1949	1973	750,000
241-BY-104	1948-1949	1977	750,000
241-BY-105	1948-1949	1974	750,000

Table 1 Continued
Single-Shell Tank Summary

TANK NUMBER	YEAR OF CONSTRUCTION	YEAR REMOVED[1] FROM SERVICE	OPERATING CAPACITY
241-BY-106	1948-1949	1977	750,000
241-BY-107	1948-1949	1974	750,000
241-BY-108	1948-1949	1972	750,000
241-BY-109	1948-1949	1979	750,000
241-BY-110	1948-1949	1979	750,000
241-BY-111	1948-1949	1977	750,000
241-BY-112	1948-1949	1978	750,000
241-C-101	1943-1944	1970	500,000
241-C-102	1943-1944	1976	500,000
241-C-103	1943-1944	1979	500,000
241-C-104	1943-1944	1980	500,000
241-C-105	1943-1944	1979	500,000
241-C-106	1943-1944	1979	500,000
241-C-107	1943-1944	1978	500,000
241-C-108	1943-1944	1976	500,000
241-C-109	1943-1944	1976	500,000
241-C-110	1943-1944	1976	500,000
241-C-111	1943-1944	1978	500,000
241-C-112	1943-1944	1976	500,000
241-C-201	1943-1944	1977	55,000
241-C-202	1943-1944	1977	55,000
241-C-203	1943-1944	1977	55,000
241-C-204	1943-1944	1977	55,000
241-S-101	1950-1951	1980	750,000
241-S-102	1950-1951	1980	750,000
241-S-103	1950-1951	1980	750,000
241-S-104	1950-1951	1968	750,000
241-S-105	1950-1951	1974	750,000
241-S-106	1950-1951	1979	750,000
241-S-107	1950-1951	1980	750,000
241-S-108	1950-1951	1979	750,000
241-S-109	1950-1951	1979	750,000
241-S-110	1950-1951	1979	750,000
241-S-111	1950-1951	1972	750,000
241-S-112	1950-1951	1974	750,000

Table 1 Continued
Single-Shell Tank Summary

TANK NUMBER	YEAR OF CONSTRUCTION	YEAR REMOVED[1] FROM SERVICE	OPERATING CAPACITY
241-TX-111	1947-1948	1977	750,000
241-TX-112	1947-1948	1974	750,000
241-TX-113	1947-1948	1971	750,000
241-TX-114	1947-1948	1971	750,000
241-TX-115	1947-1948	1977	750,000
241-TX-116	1947-1948	1969	750,000
241-TX-117	1947-1948	1969	750,000
241-TX-118	1947-1948	1980	750,000
241-TY-101	1951-1952	1973	750,000
241-TY-102	1951-1952	1979	750,000
241-TY-103	1951-1952	1973	750,000
241-TY-104	1951-1952	1974	750,000
241-TY-105	1951-1952	1980	750,000
241-TY-106	1951-1952	1959	750,000
241-U-101	1943-1944	1960	500,000
241-U-102	1943-1944	1979	500,000
241-U-103	1943-1944	1978	500,000
241-U-104	1943-1944	1951	500,000
241-U-105	1943-1944	1978	500,000
241-U-106	1943-1944	1977	500,000
241-U-107	1943-1944	1980	500,000
241-U-108	1943-1944	1979	500,000
241-U-109	1943-1944	1978	500,000
241-U-110	1943-1944	1975	500,000
241-U-111	1943-1944	1980	500,000
241-U-112	1943-1944	1970	500,000
241-U-201	1943-1944	1977	55,000
241-U-202	1943-1944	1977	55,000
241-U-203	1943-1944	1977	55,000
241-U-204	1943-1944	1977	55,000

[1]The last year the tank was capable of receiving waste; actual date of last waste receipt may have been earlier.

Table 1 Continued
Single-Shell Tank Summary

TANK NUMBER	YEAR OF CONSTRUCTION	YEAR REMOVED[1] FROM SERVICE	OPERATING CAPACITY
241-SX-101	1953-1954	1980	1,000,000
241-SX-102	1953-1954	1980	1,000,000
241-SX-103	1953-1954	1980	1,000,000
241-SX-104	1953-1954	1980	1,000,000
241-SX-105	1953-1954	1980	1,000,000
241-SX-106	1953-1954	1980	1,000,000
241-SX-107	1953-1954	1964	1,000,000
241-SX-108	1953-1954	1962	1,000,000
241-SX-109	1953-1954	1965	1,000,000
241-SX-110	1953-1954	1976	1,000,000
241-SX-111	1953-1954	1974	1,000,000
241-SX-112	1953-1954	1969	1,000,000
241-SX-113	1953-1954	1958	1,000,000
241-SX-114	1953-1954	1972	1,000,000
241-SX-115	1953-1954	1965	1,000,000
241-T-101	1943-1944	1979	500,000
241-T-102	1943-1944	1976	500,000
241-T-103	1943-1944	1974	500,000
241-T-104	1943-1944	1974	500,000
241-T-105	1943-1944	1976	500,000
241-T-106	1943-1944	1973	500,000
241-T-107	1943-1944	1976	500,000
241-T-108	1943-1944	1974	500,000
241-T-109	1943-1944	1974	500,000
241-T-110	1943-1944	1976	500,000
241-T-111	1943-1944	1974	500,000
241-T-112	1943-1944	1977	500,000
241-T-201	1943-1944	1976	55,000
241-T-202	1943-1944	1976	55,000
241-T-203	1943-1944	1976	55,000
241-T-204	1943-1944	1976	55,000
241-TX-101	1947-1948	1980	750,000
241-TX-102	1947-1948	1977	750,000
241-TX-103	1947-1948	1980	750,000
241-TX-104	1947-1948	1977	750,000
241-TX-105	1947-1948	1977	750,000
241-TX-106	1947-1948	1977	750,000
241-TX-107	1947-1948	1977	750,000
241-TX-108	1947-1948	1977	750,000
241-TX-109	1947-1948	1977	750,000
241-TX-110	1947-1948	1977	750,000

TABLE 2

SINGLE-SHELL TANK DIVERSION BOX MATRIX

UNIT	SINGLE-SHELL TANKS	DIVERSION BOXES
A	241-A-101	241-A-152
	through	241-A-153
	241-A-106	241-AX-151
	241-AX-101	241-AX-153
	through	241-AY-151
	241-AX-104	241-AY-152
B	241-B-101	241-B-151
	through	241-B-152
	241-B-112	241-B-153
	241-B-201	241-B-154
	through	241-B-252
	241-B-204	241-B-151
	241-BX-101	241-BR-152
	through	241-BR-153
	241-BX-112	241-BR-154
	241-BY-101	241-BR-155
	through	241-BXR-151
	241-BY-112	241-BXR-152
		241-BXR-153
		241-BYR-152
		241-BYR-153
		241-BYR-154
C	241-C-101	241-C-151
	through	241-C-152
	241-C-112	241-C-153
	241-C-201	241-C-154
	through	241-C-252
	241-C-204	241-CR-151
		241-CR-152
		241-CR-153

TABLE 2 CONTINUED

SINGLE-SHELL TANK DIVERSION BOX MATRIX

UNIT	SINGLE-SHELL TANKS	DIVERSION BOXES
S	241-S-101 through 241-S-152 241-SX-101 through 241-SX-115	240-S-152 241-S-152 241-SX-151 241-SX-152
T	241-T-101 through 241-T-112 241-T-201 through 241-T-204	241-T-151 241-T-152 241-T-153 241-T-252 242-T-151 241-TR-152 241-TR-153
	241-TX-101 through 241-TX-118 241-TY-101 through 241-TY-106	241-TX-153 241-TX-155 241-TXR-151 241-TXR-152 241-TXR-153 241-TY-153
U	241-U-101 through 241-U-112 241-U-201 through 241-U-204	241-U-153 241-U-252 241-UR-151 241-UR-152 241-UR-153 241-UR-154

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.

John E. Nolan

Co-operator
John E. Nolan, President
Westinghouse Hanford Company

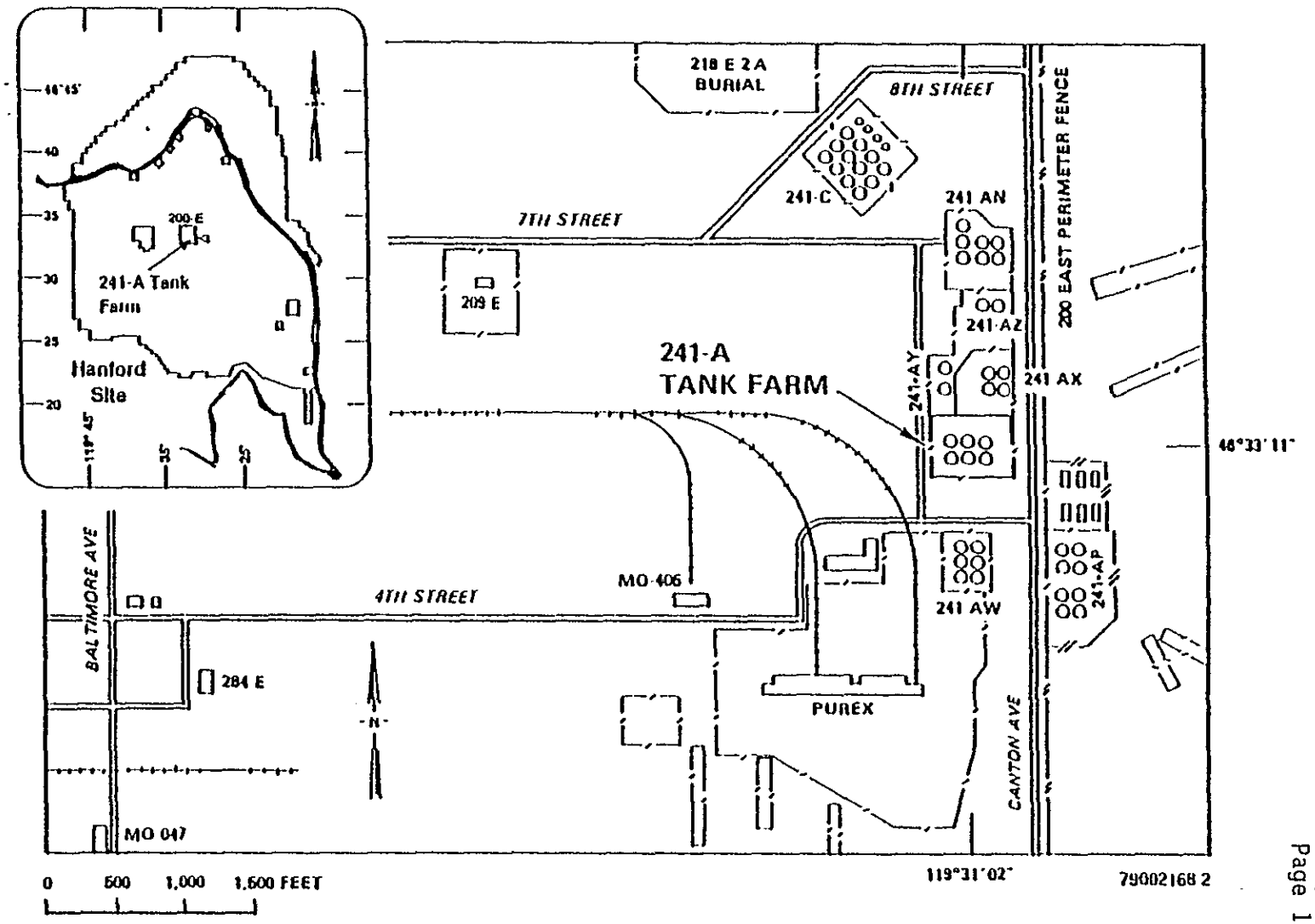
3/23/90
Date

Michael J. Lawrence

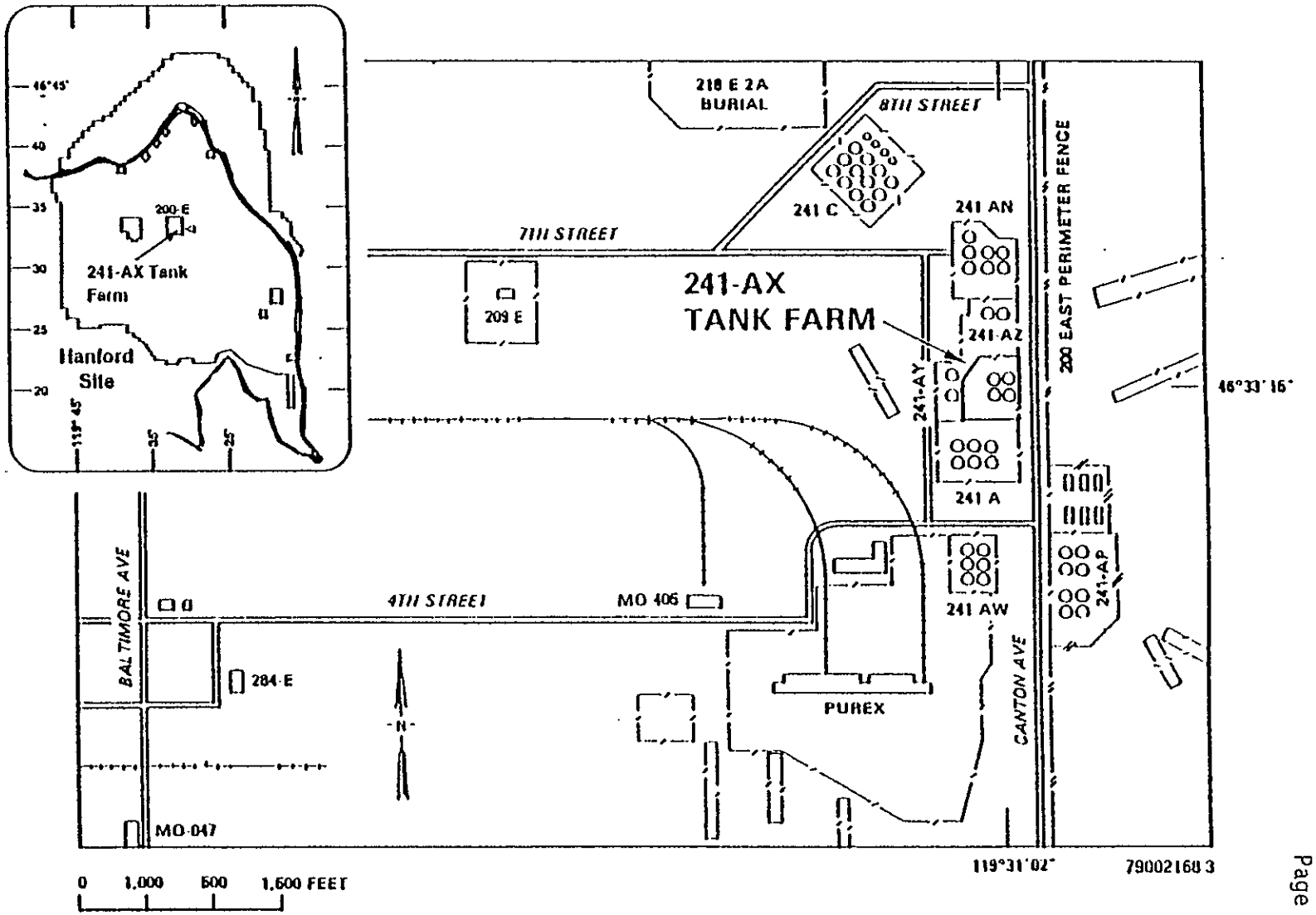
Owner/Operator
Michael J. Lawrence, Manager
U.S. Department of Energy
Richland Operations Office

3/30/90
Date

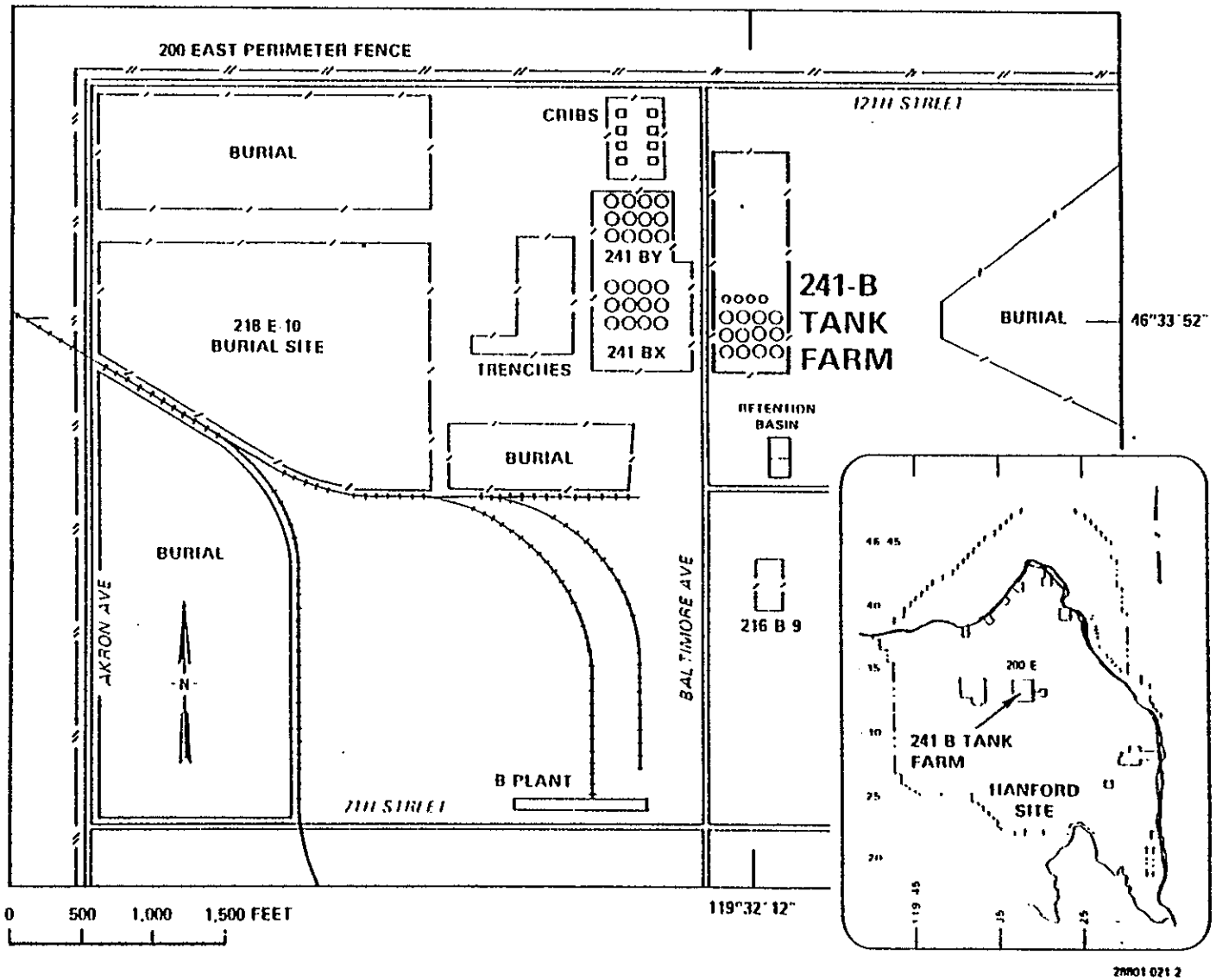
241-A SINGLE-SHELL TANK FARM
SITE PLAN



241-AX SINGLE-SHELL TANK FARM
SITE PLAN

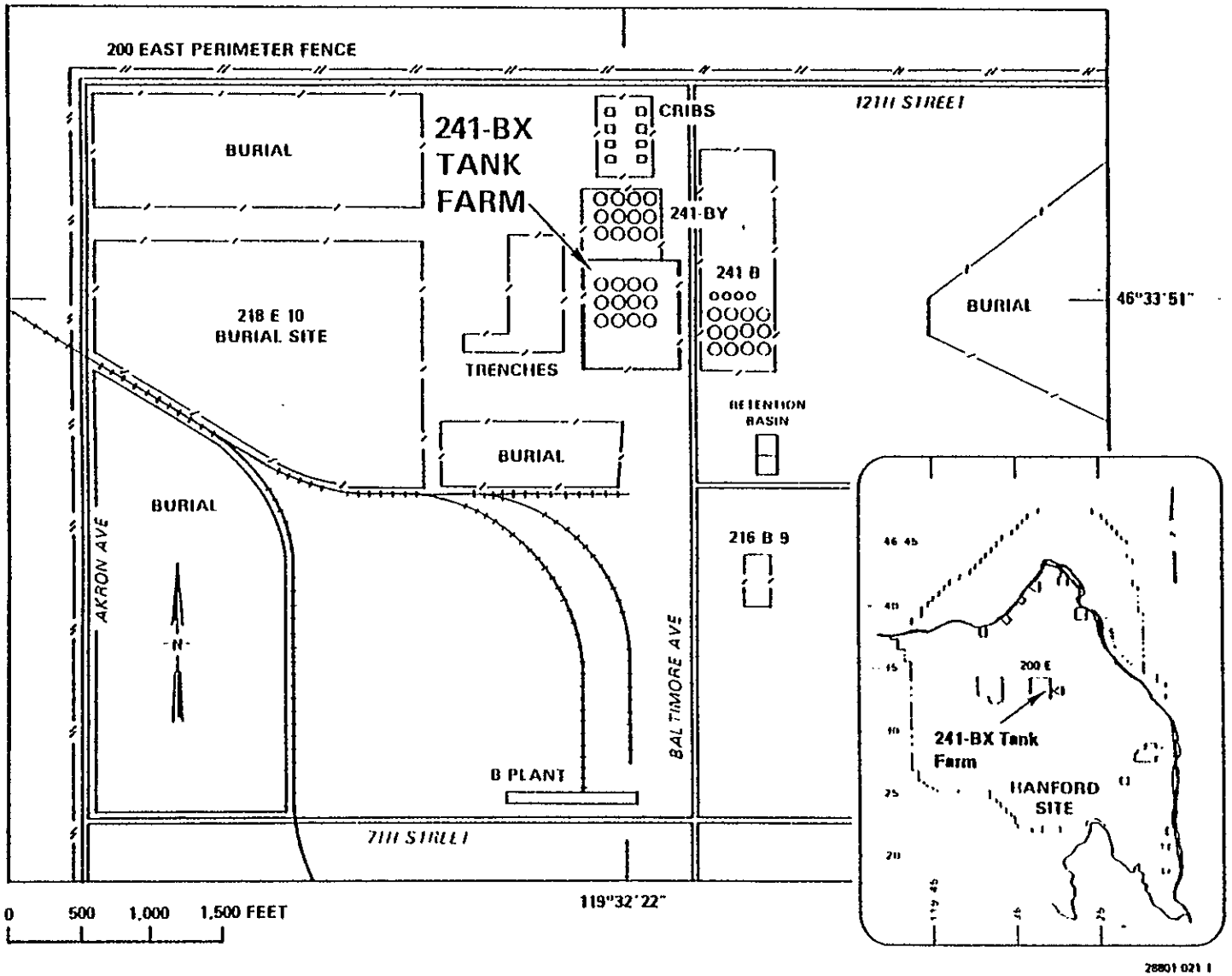


241-B SINGLE-SHELL TANK FARM
SITE PLAN

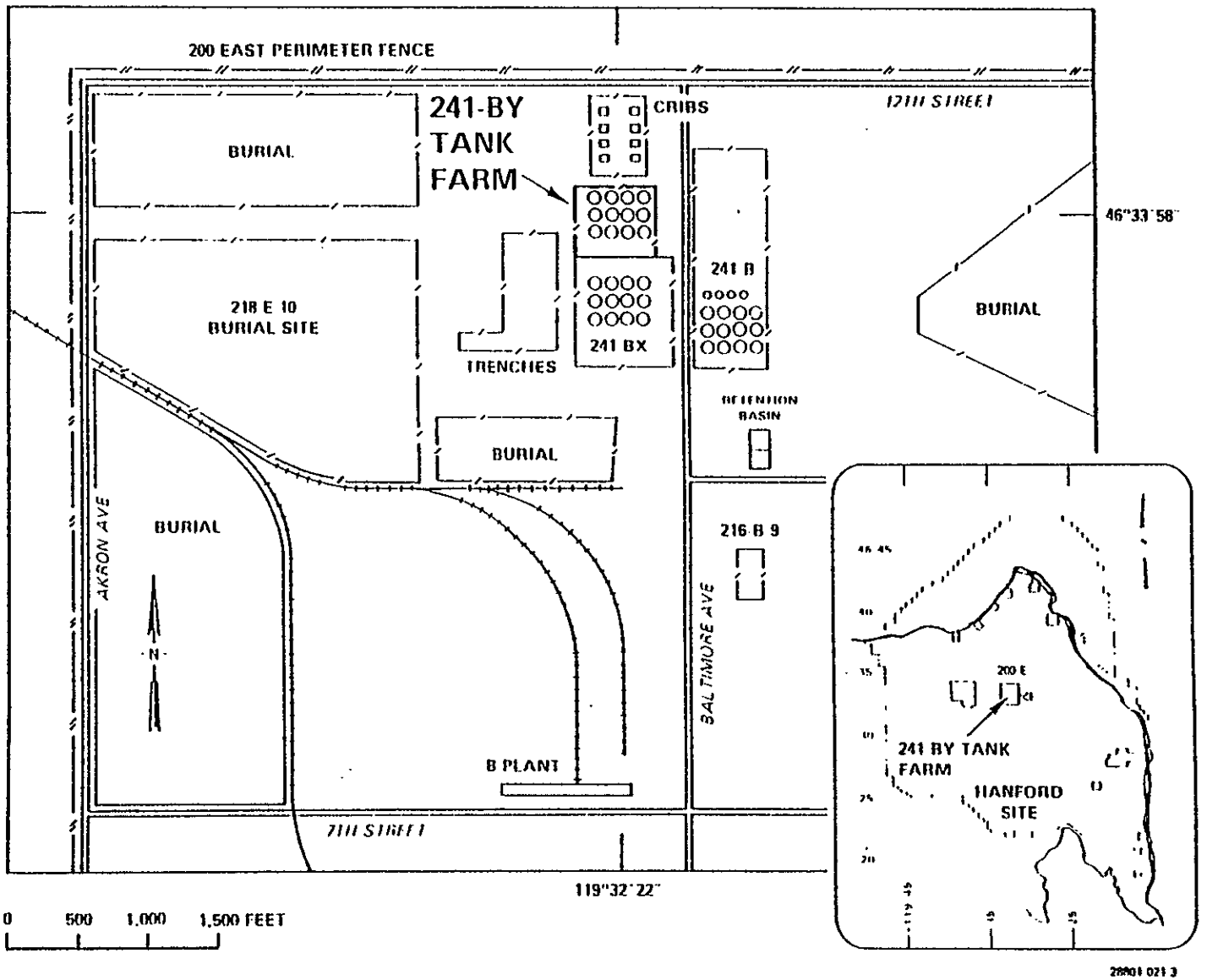


WA7890008967

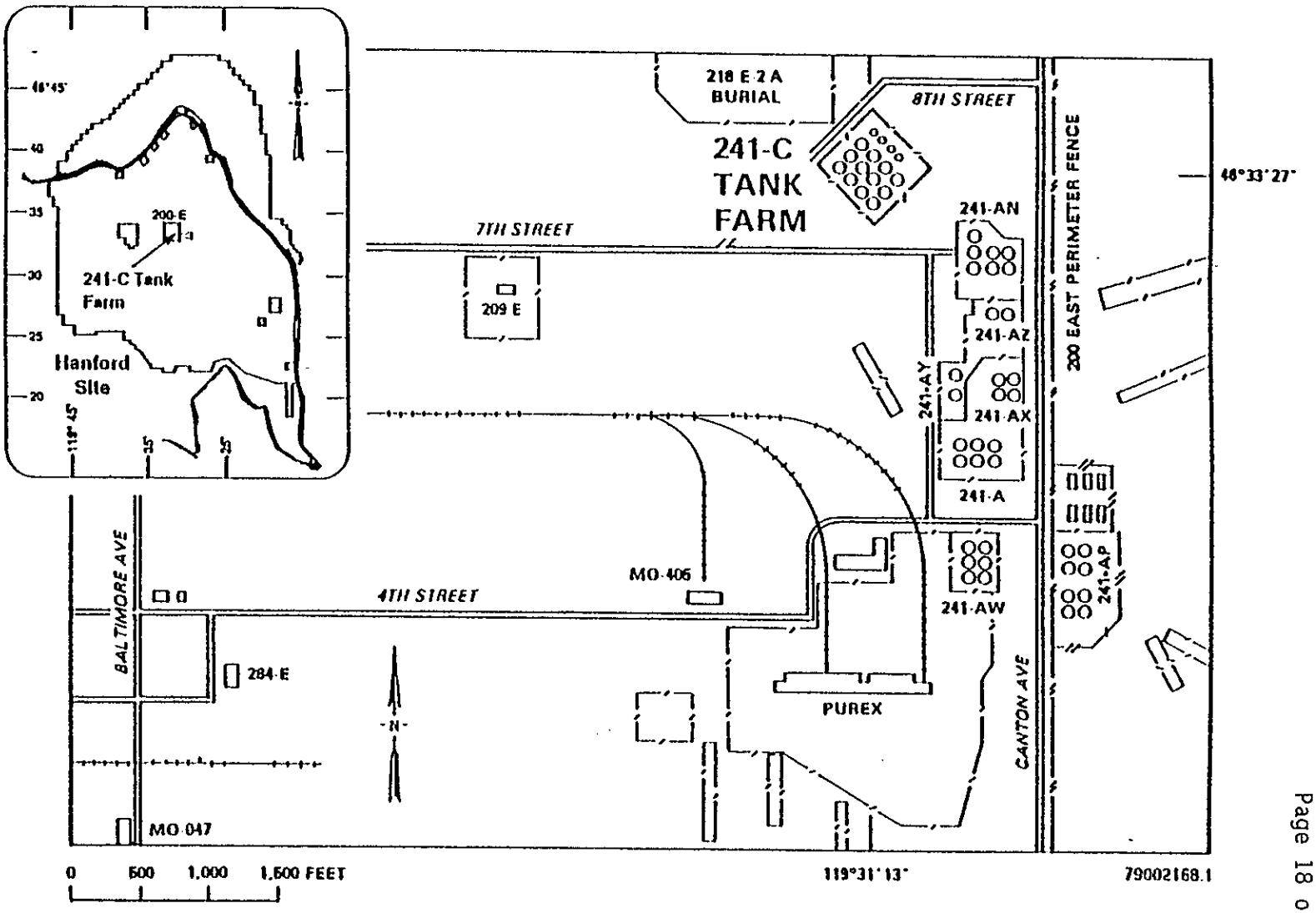
241-BX SINGLE-SHELL TANK FARM
SITE PLAN



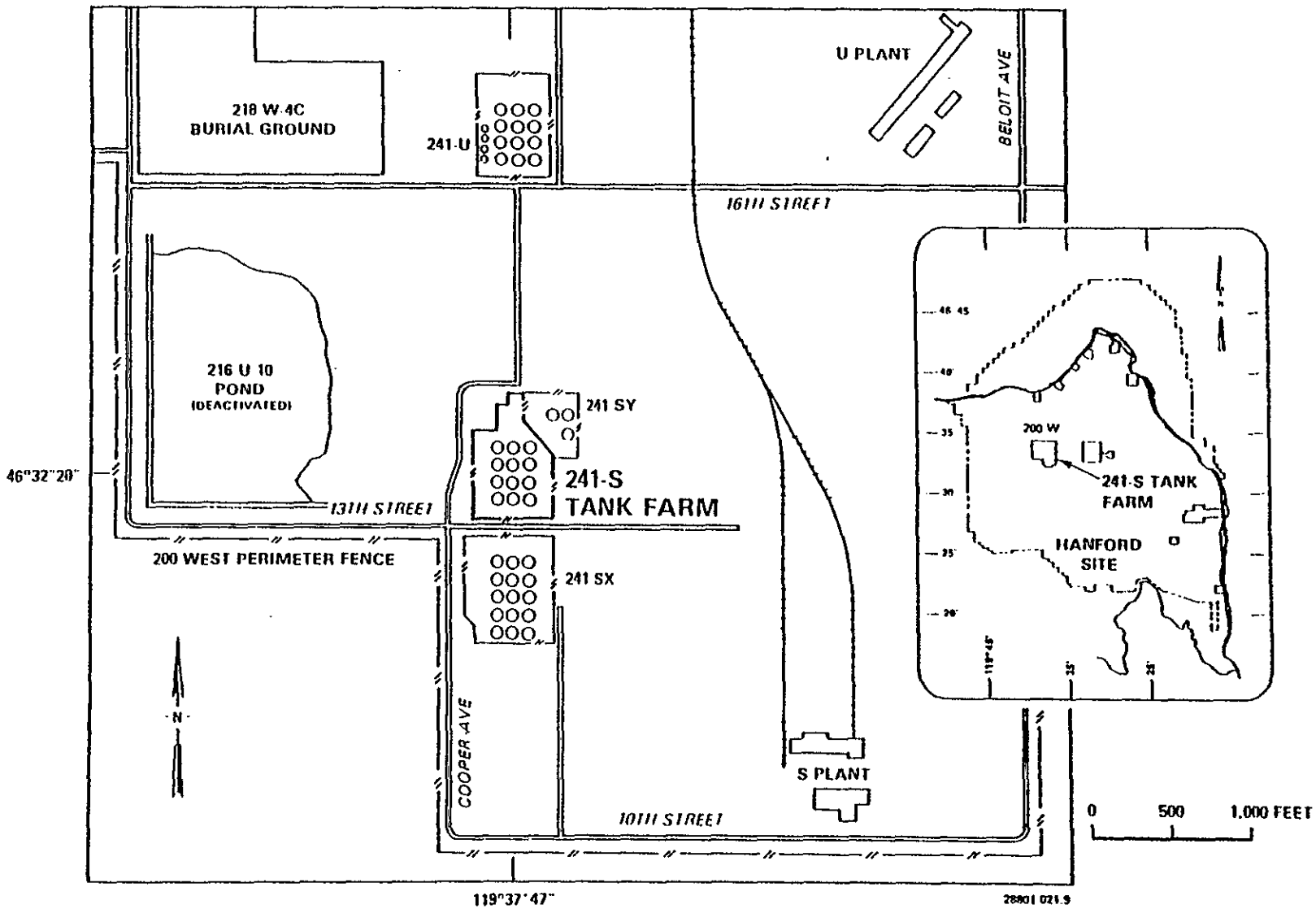
241-BY SINGLE-SHELL TANK FARM
SITE PLAN



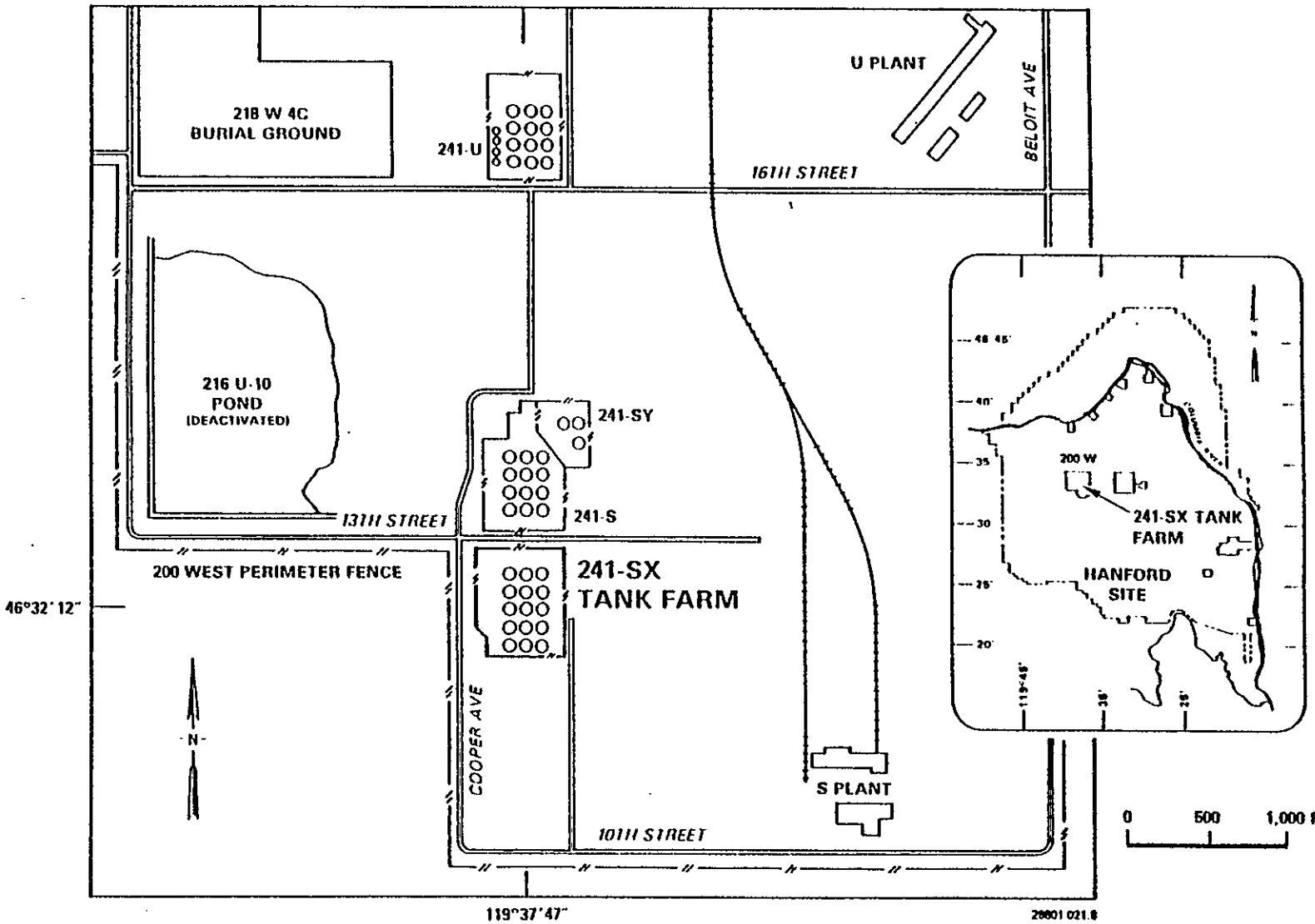
241-C SINGLE-SHELL TANK FARM
SITE PLAN



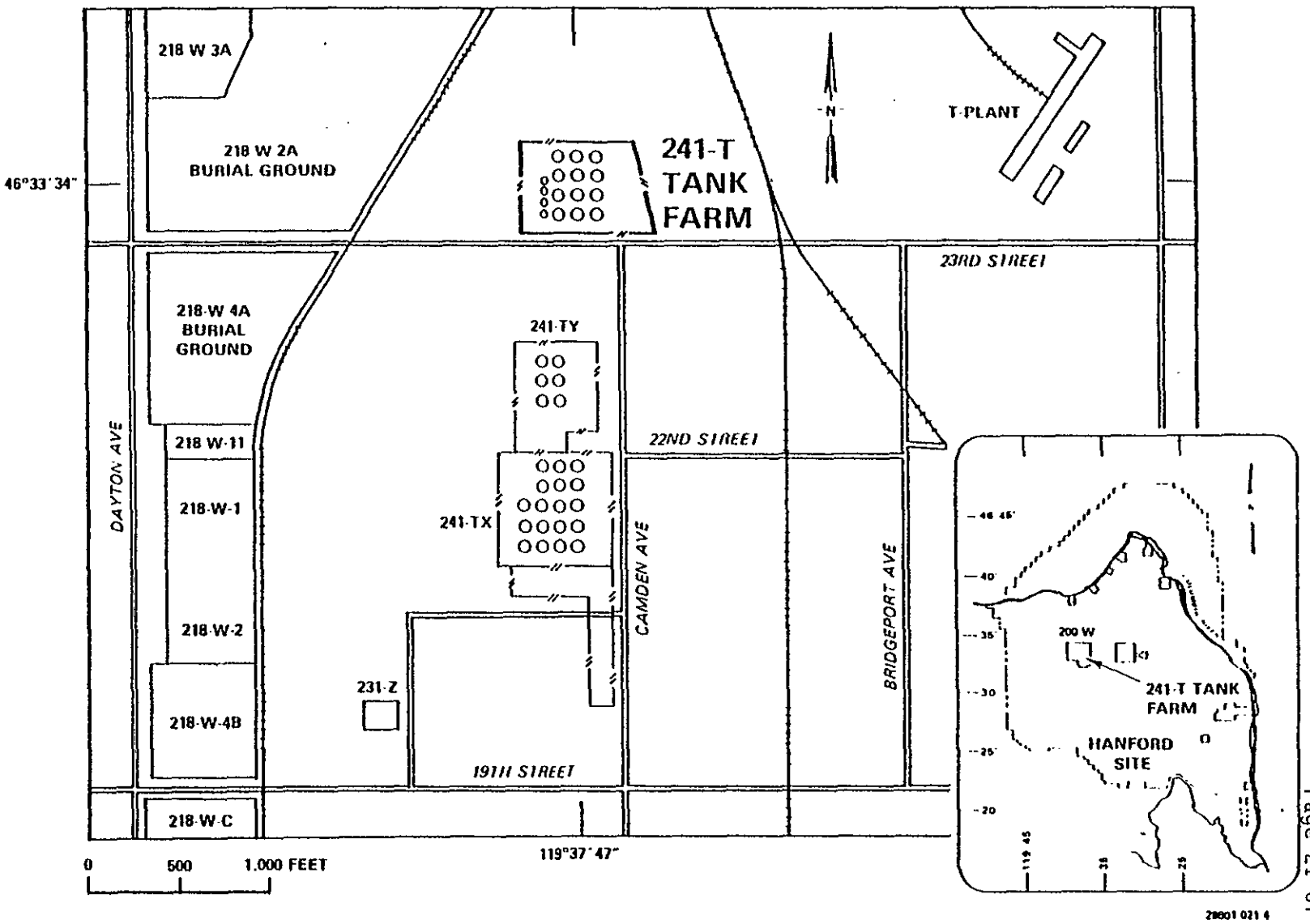
241-S SINGLE-SHELL TANK FARM
SITE PLAN



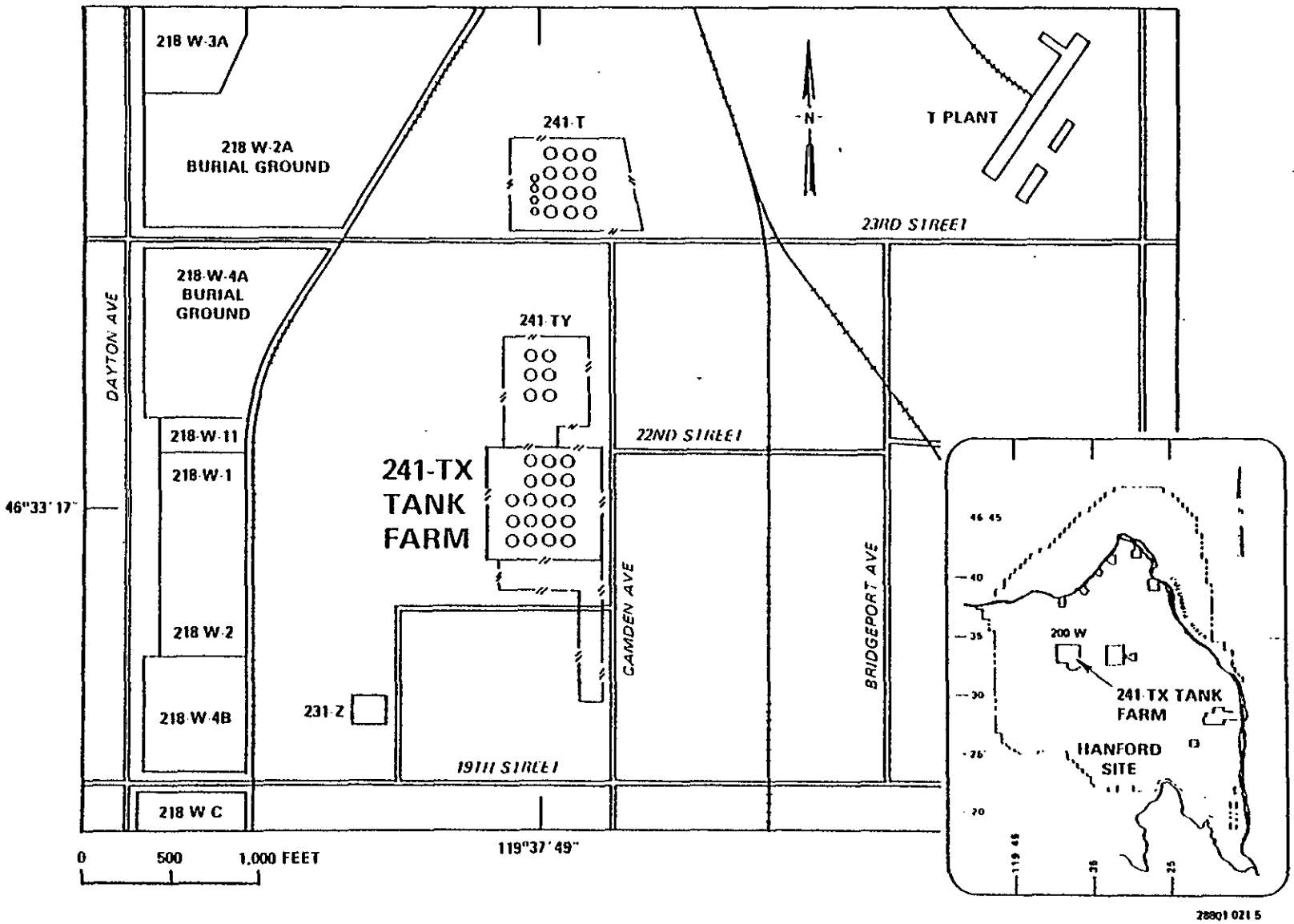
241-SX SINGLE-SHELL TANK FARM
SITE PLAN



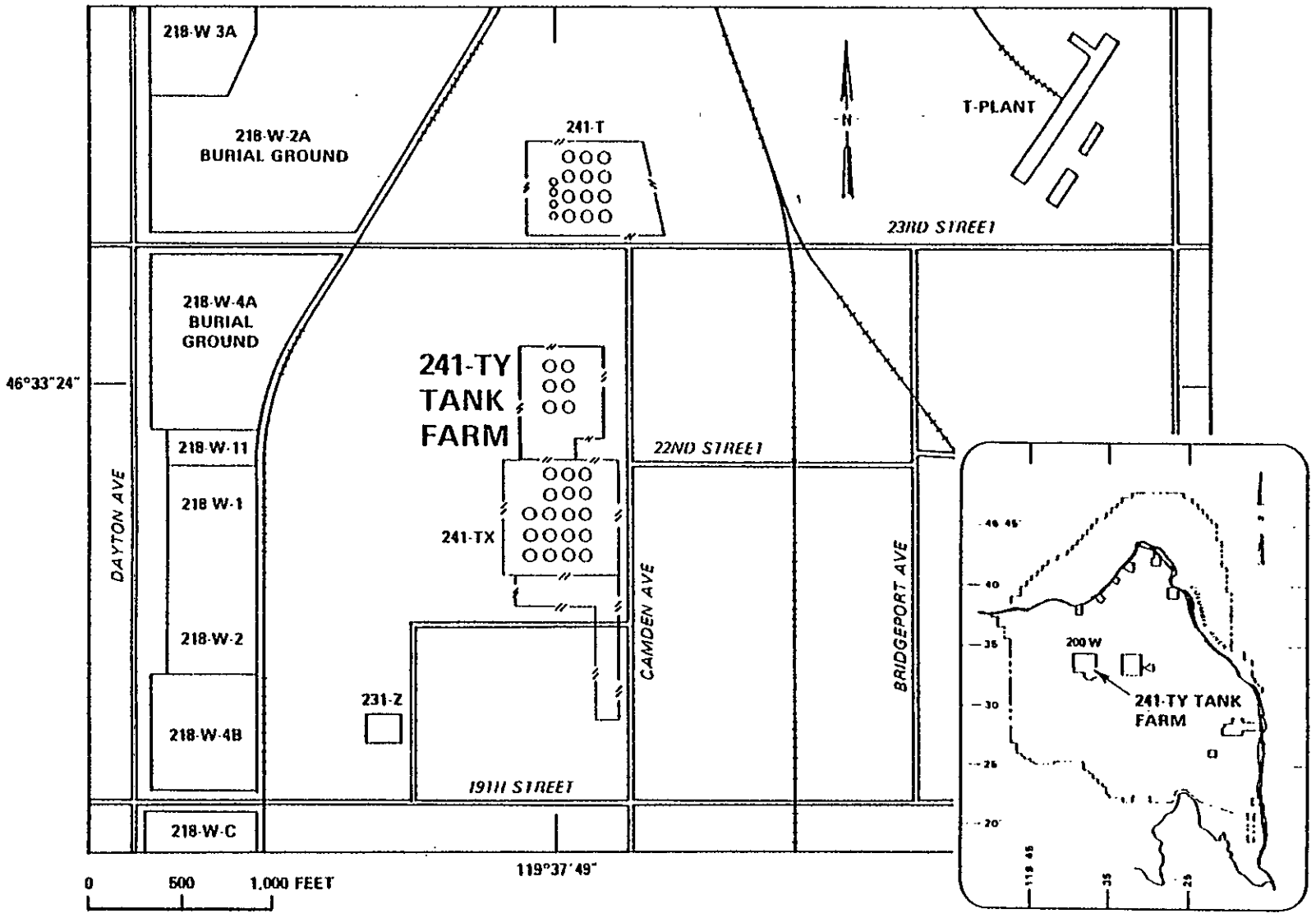
241-T SINGLE-SHELL TANK FARM
SITE PLAN



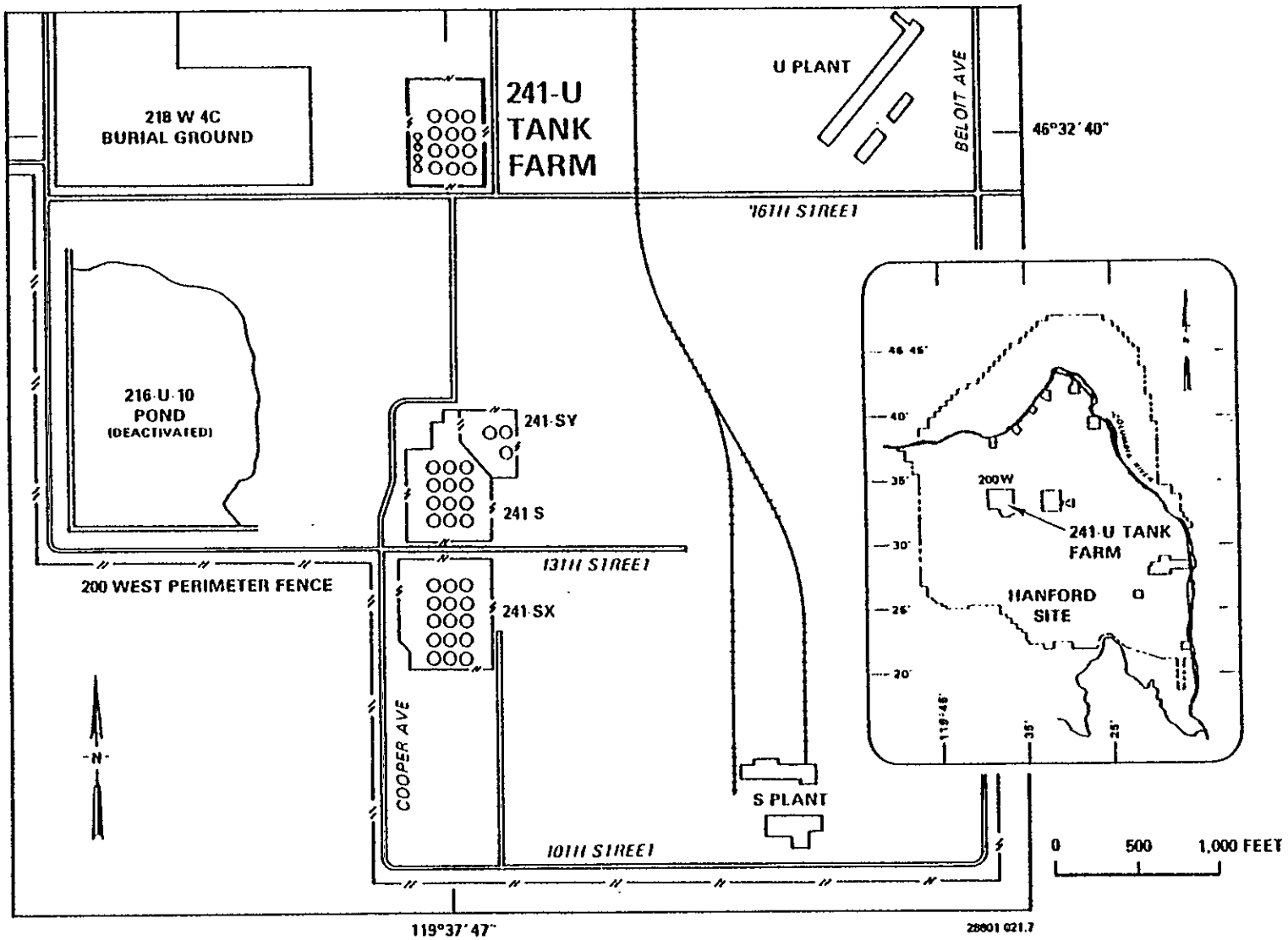
241-TX SINGLE-SHELL TANK FARM
SITE PLAN



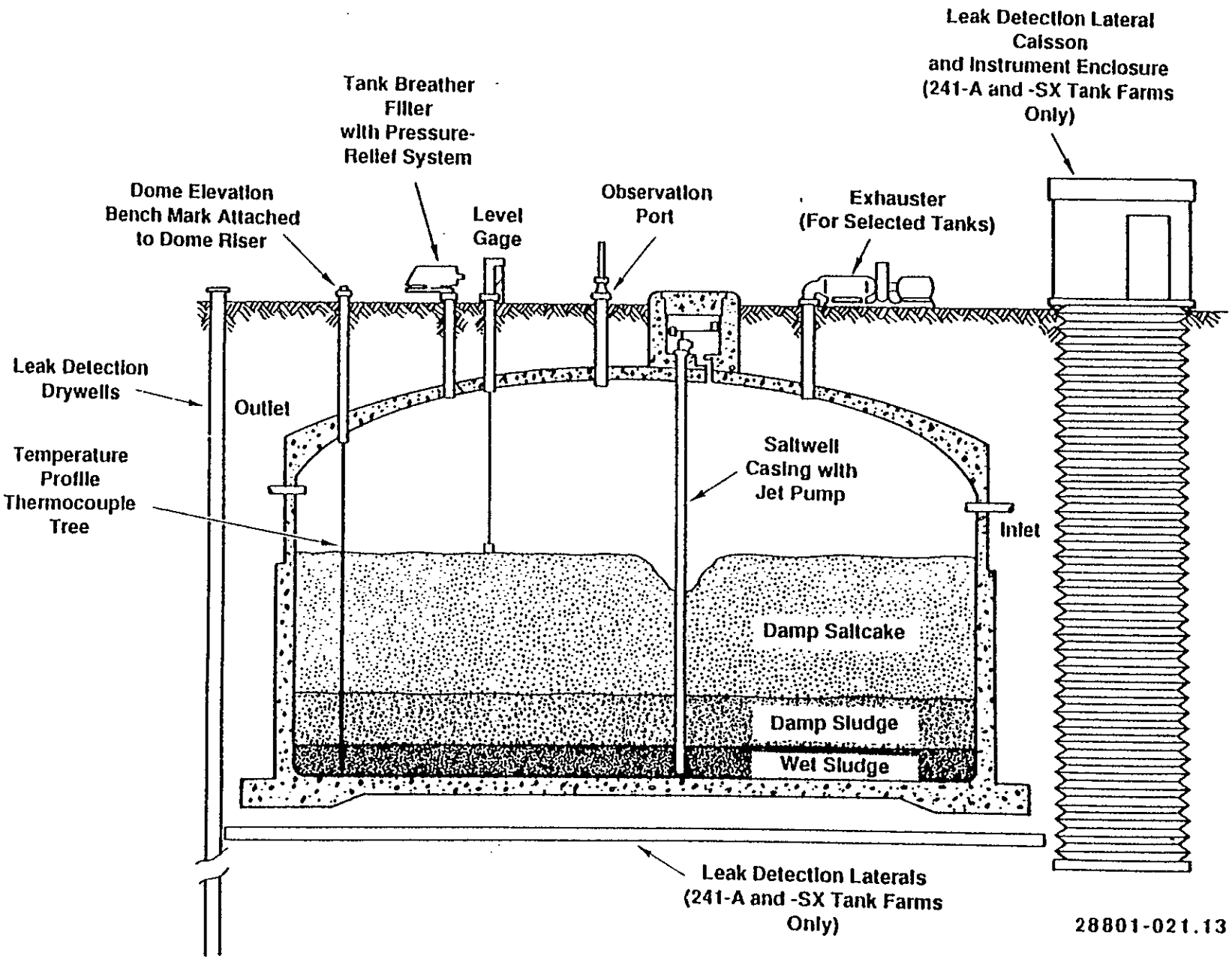
241-TY SINGLE-SHELL TANK FARM
SITE PLAN



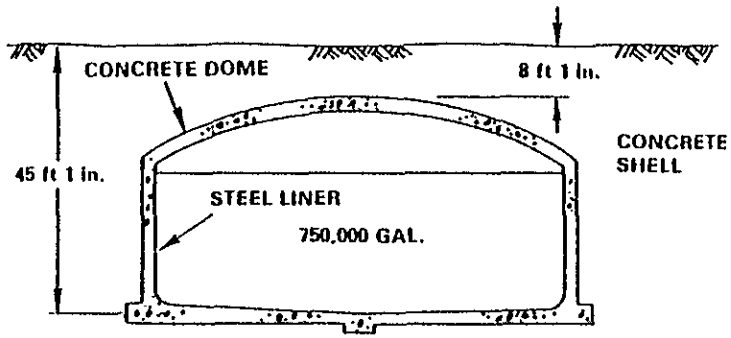
241-U SINGLE-SHELL TANK FARM
SITE PLAN



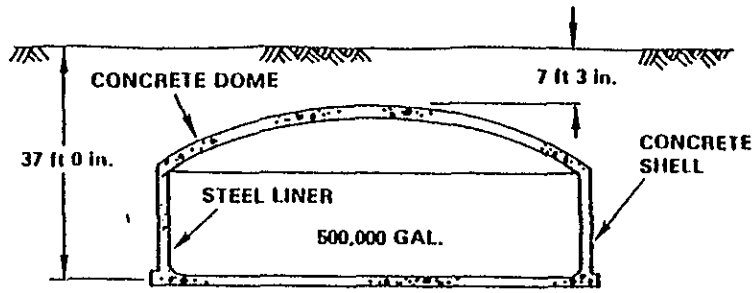
TYPICAL SINGLE-SHELL TANK



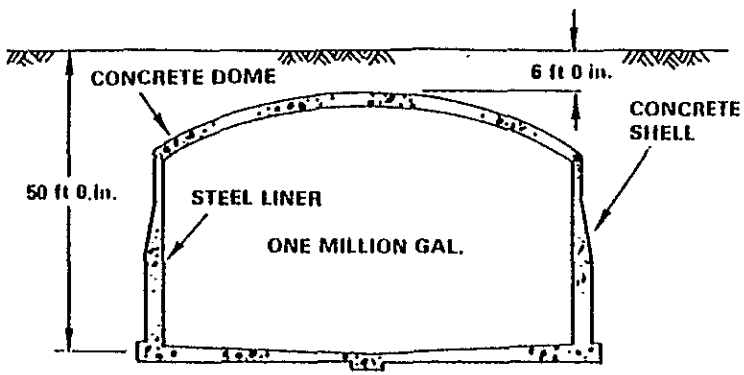
VARIOUS SINGLE-SHELL WASTE TANKS



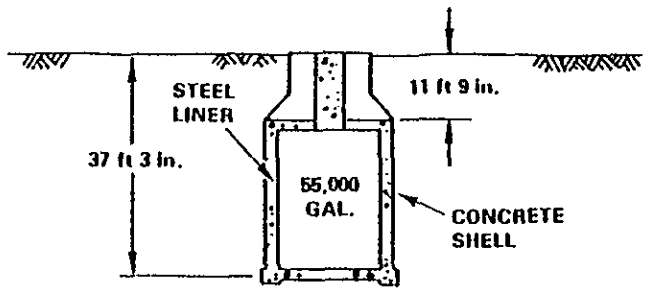
75 ft DIAMETER SINGLE-SHELL TANK
(BY, S, TX, AND TY FARMS)



75 ft DIAMETER SINGLE SHELL TANK
(B, BX, C, T, AND U FARMS)



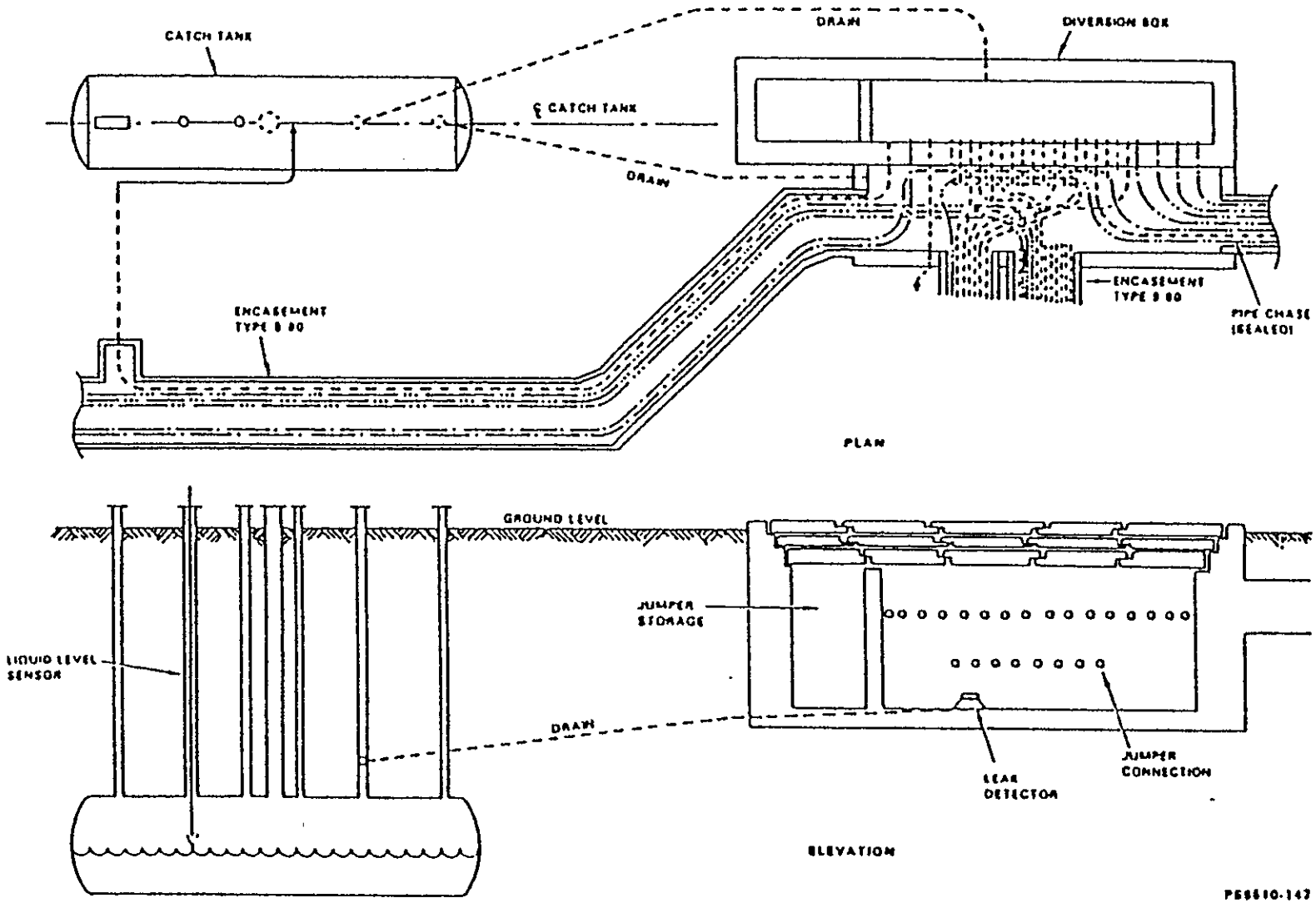
75 ft DIAMETER SINGLE-SHELL TANK
(A, AX, AND SX FARMS)



20 ft DIAMETER SINGLE-SHELL TANK (200 SERIES)

26801 021 14

TYPICAL TRANSFER FACILITY



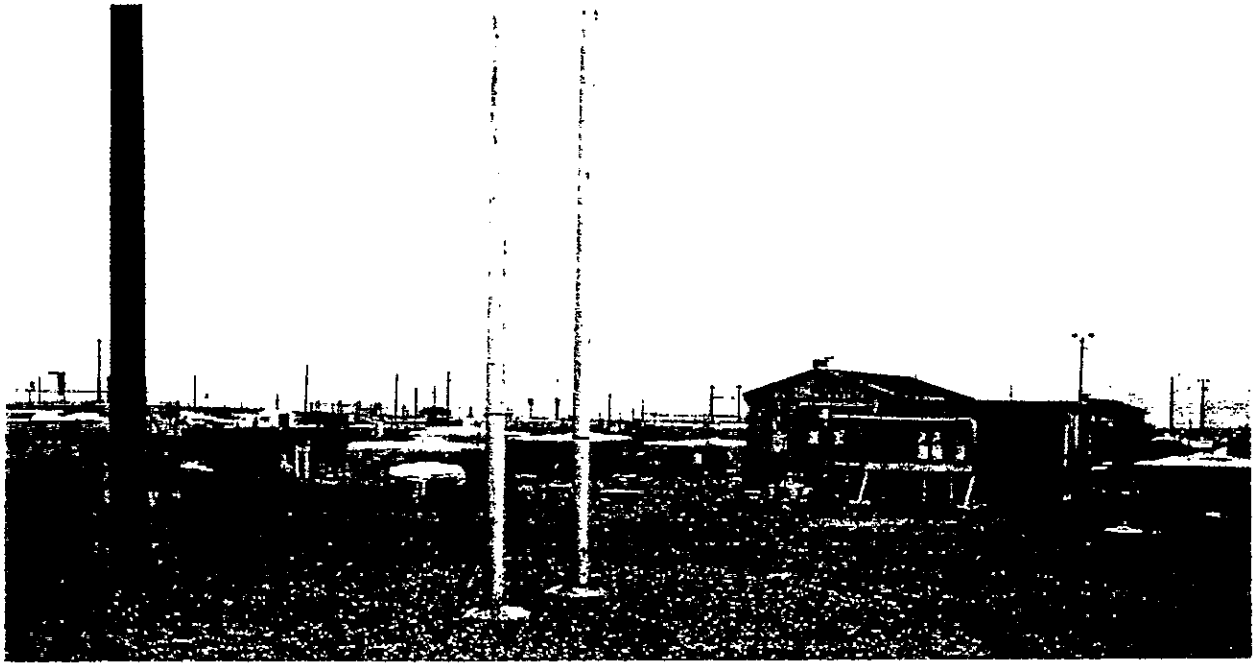
241-A SINGLE-SHELL TANK FARMS

46°33'11"
119°31'02"

8800284-1CN
(PHOTO TAKEN 1988)

241-AX SINGLE-SHELL TANK FARM

8800284-2CN
(PHOTO TAKEN 1988)



46°33'15"
119°31'02"

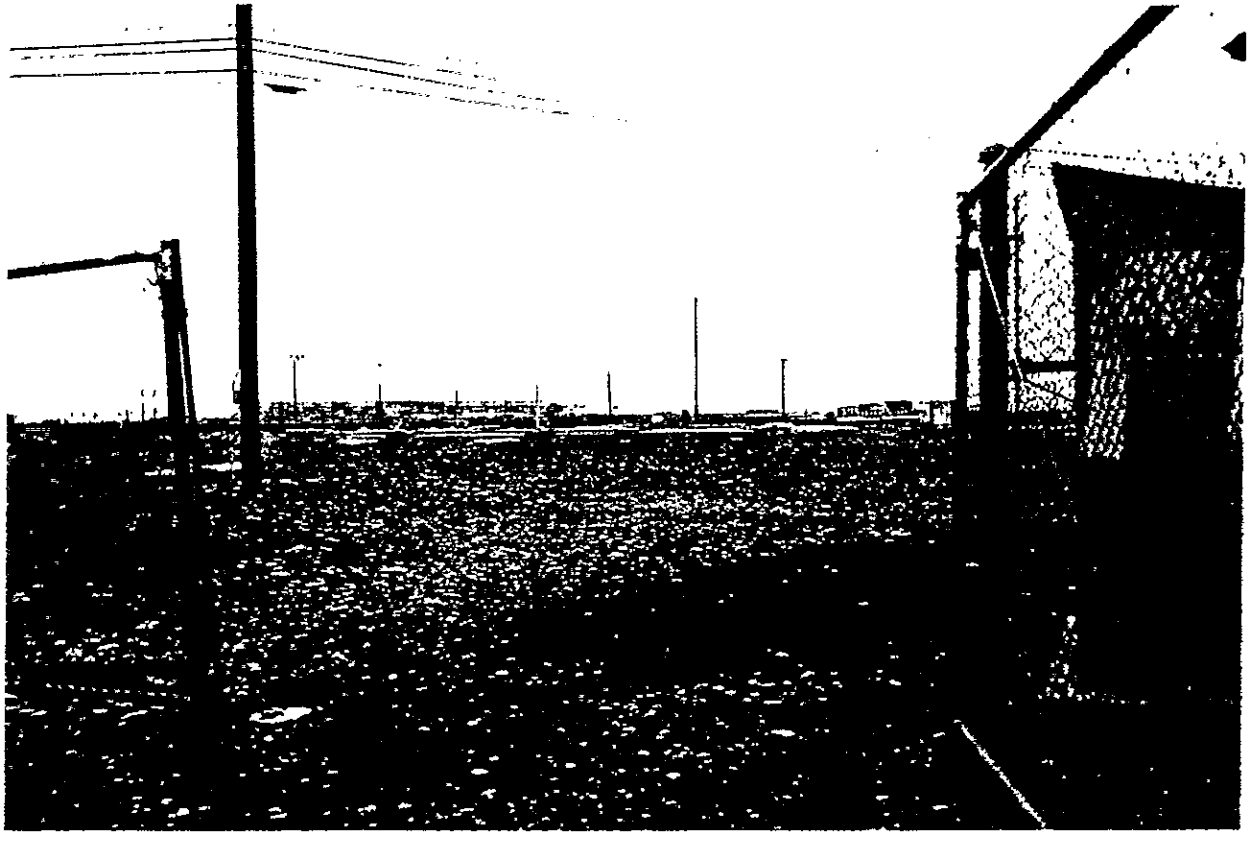
8800284-3CN
(PHOTO TAKEN 1988)

241-B SINGLE-SHELL TANK FARM

46°33'52"
119°32'12"

8800284-6CN
(PHOTO TAKEN 1988)

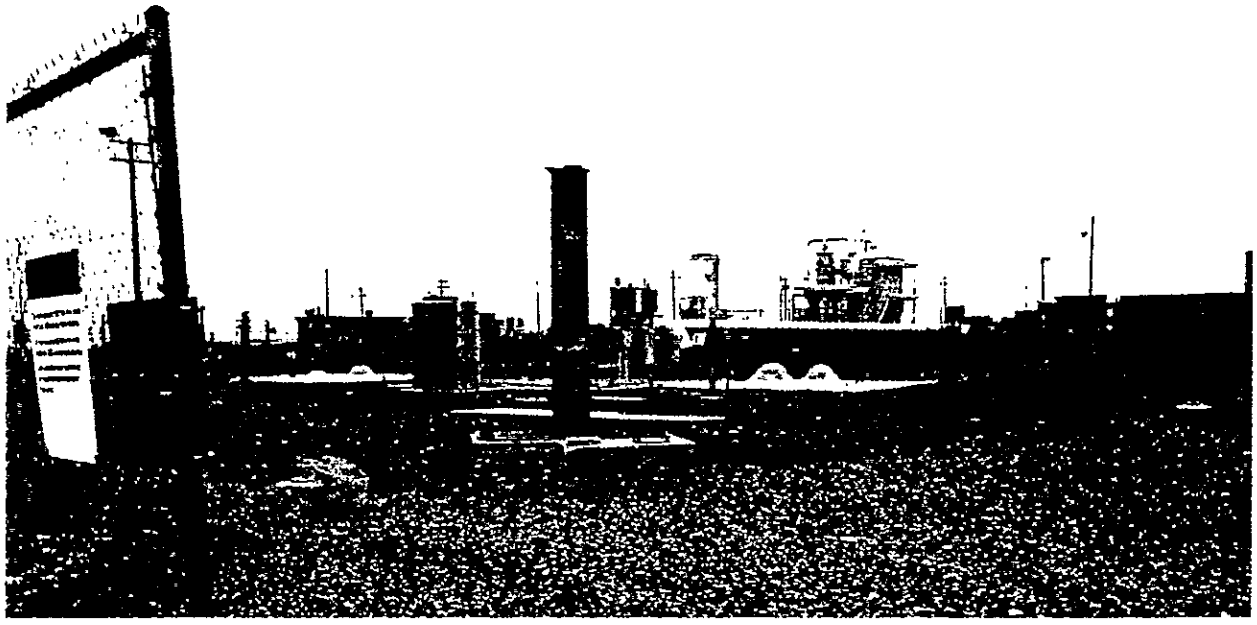
241-BX SINGLE-SHELL TANK FARM



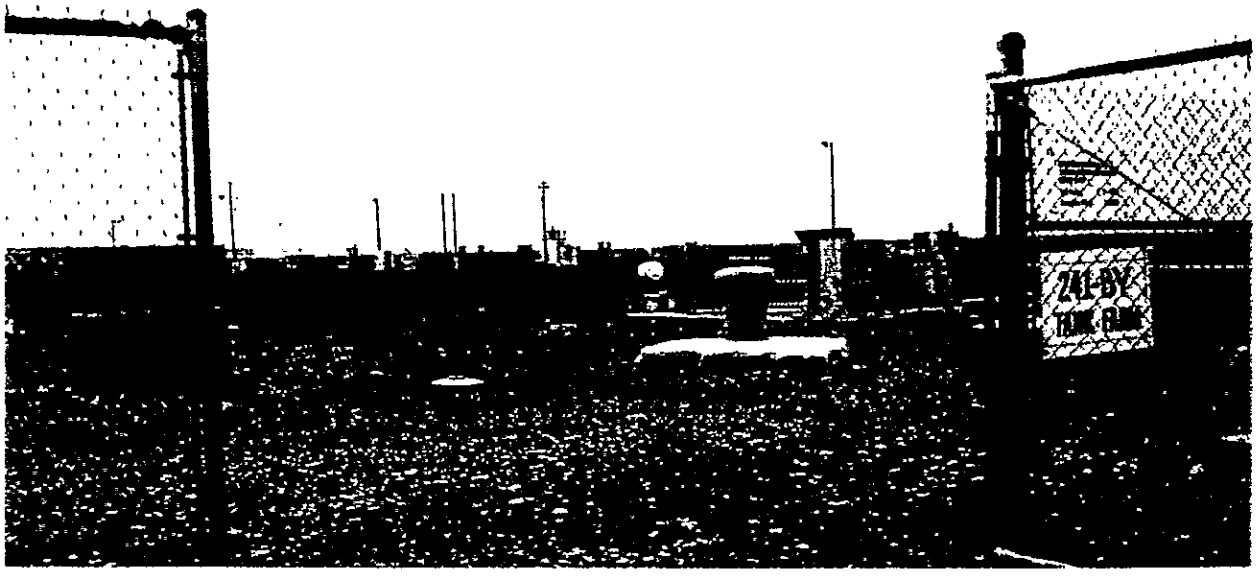
46°33'51"
119°32'22"

8800284-7CN
(PHOTO TAKEN 1988)

241-BY SINGLE-SHELL TANK FARM



8800284-8CN
(PHOTO TAKEN 1988)



46°33'58"
119°32'22"

8800284-9CN
(PHOTO TAKEN 1988)

241-C SINGLE-SHELL TANK FARM

46°33'27"
119°31'13"

8800284-5CN
(PHOTO TAKEN 1988)

241-S SINGLE-SHELL TANK FARM

46°32'20"
119°37'47"

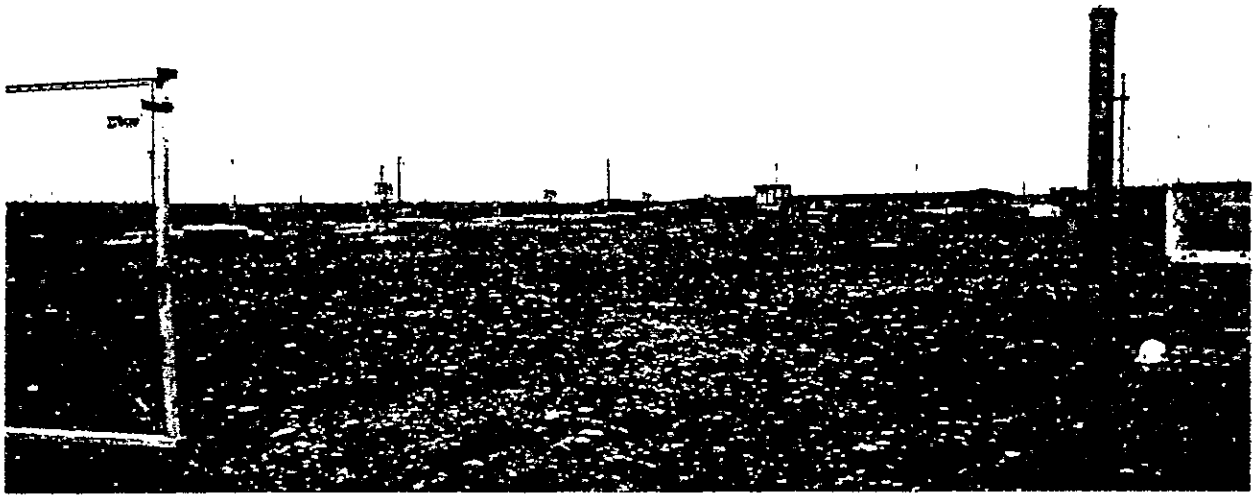
8800284-15CN
(PHOTO TAKEN 1988)

241-SX SINGLE-SHELL TANK FARM

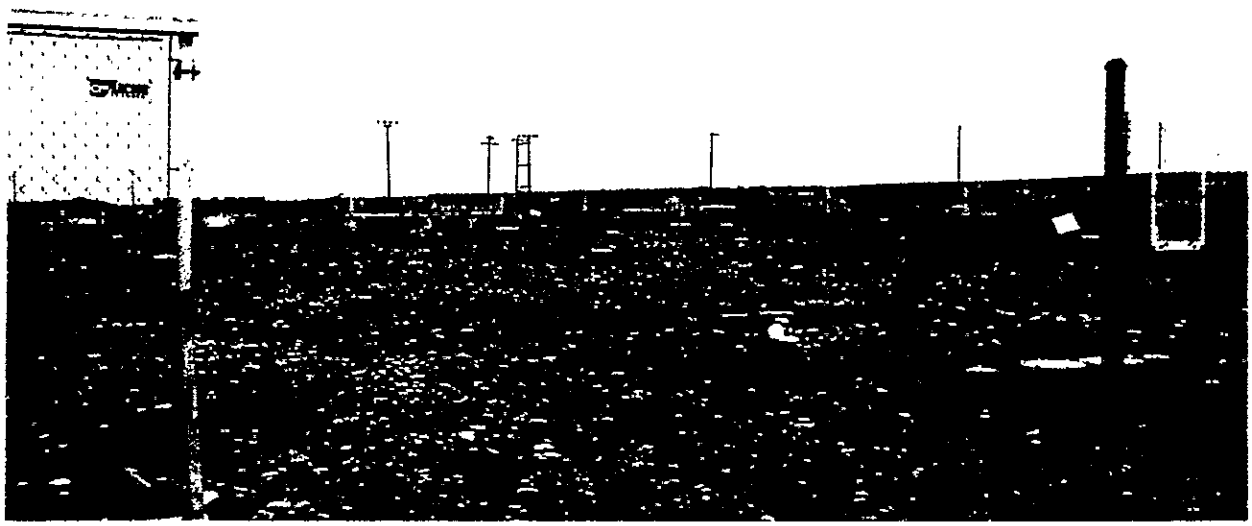
46°32'12"
119°37'47"

8800284-16CN
(PHOTO TAKEN 1988)

241-T SINGLE-SHELL TANK FARM



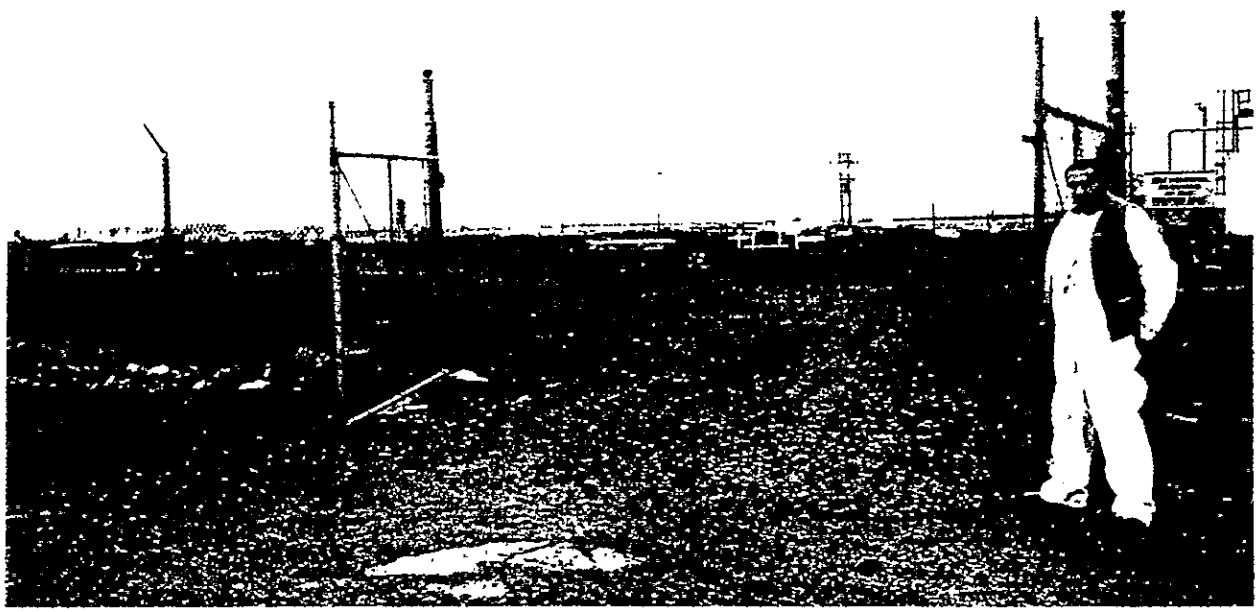
8800284-10CN
(PHOTO TAKEN 1988)



46°33'34"
119°37'47"

8800284-11CN
(PHOTO TAKEN 1988)

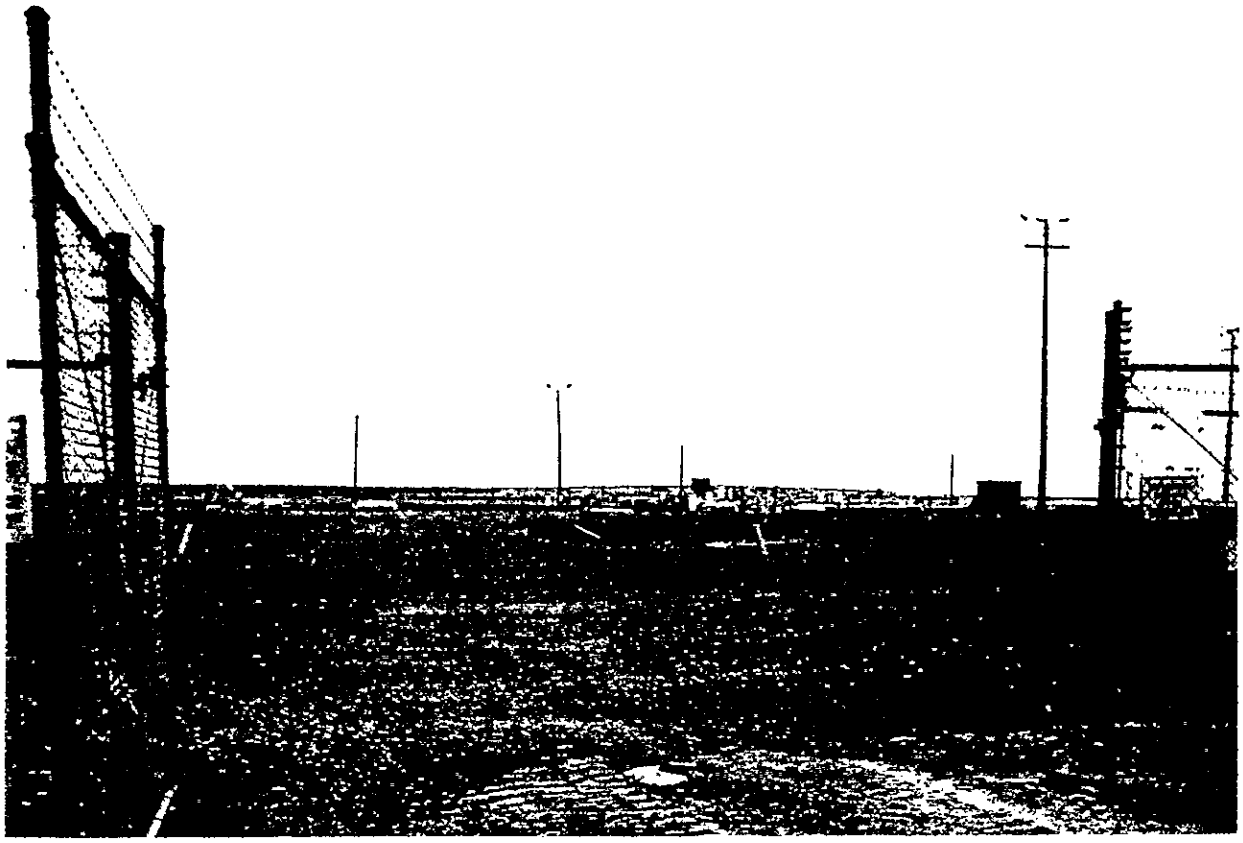
241-TX SINGLE-SHELL TANK FARM



46°33'17"
119°37'49"

8800284-13CN
(PHOTO TAKEN 1988)

241-TY SINGLE-SHELL TANK FARM



46°33'24"
119°37'49"

8800284-12CN
(PHOTO TAKEN 1988)

241-U SINGLE-SHELL TANK FARM

46°32'40"
119°37'47"

8800284-14CN
(PHOTO TAKEN 1988)

Please print or type in the unshaded areas only
(Enter a space for each letter or number. 12 Characters maximum)

FORM 3

DANGEROUS WASTE PERMIT APPLICATION

I. EPA/STATE I.D. NUMBER: W A 7 8 9 0 0 0 8 9 0 7

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (mo. day. yr.)	COMMENTS

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)

☐ 1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)

☐ 2. NEW FACILITY (Complete item below.)

* MO. DAY YR. 5 2 — FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the dates in the box)

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)

☐ 1. FACILITY HAS AN INTERIM STATUS PERMIT

☐ 2. FACILITY HAS A FINAL PERMIT

III. PROCESSES — CODES AND DESIGN 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. Two 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	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D80	GALLONS OR LITERS
LANDFILL	D81	ACRE-FEET (the volume that would cover the entire facility 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

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
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

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

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. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S02	600	G		5				
X-2	T03	20	E		6				
1	S02	30,000	G		7				
2		* The day and month of facility operation is unknown.							
3					9				
4					10				

Continued from the front

III. PROCESSES (continued)

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

S02

Tank 241-CX-70 (CX-70) was used for approximately one year in the early 1950's to store high-level process waste from the REDOX pilot plant studies. REDOX was the acronym used for the reduction/oxidation chemical process separating plutonium and uranium from irradiated reactor fuels. Tank waste removal activities for CX-70 were initiated in the summer of 1987 with the construction of a sluicing/pumping system. The sluicing/pumping system involved using large volumes of water to sluice/pump the solid waste from the CX-70 tank to a double-shell tank in the 200 East Area Tank Farms. Approximately 140,000 gallons of water were used to sluice the original waste volume of 10,300 gallons down to the present 750 gallons contained in the tank. The design capacity of the CX-70 tank is 30,000 gallons.

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 operations. 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	K054	900	P	T03	D80			
X-2	D002	400	P	T03	D80			
X-3	D001	100	P	T03	D80			
X-4	D002			T03	D80			included with above

Continued from page 2.

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

ID NUMBER (enter from page 1): WA7890008967

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

LINE NO.	A. DANGEROUS WASTE NO. (enter codes)	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))
1	D002	19,000	P	S02				Storage
2								
3								
4								
5								
6								
7								
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9								
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11								
12								
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15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								

Continued from the front

IV. DESCRIPTION OF DANGEROUS WASTES *(continued)*

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

Tank 241-CX-70 (CX-70) contains 750 gallons of waste with a pH of 13.1. Approximately two-thirds of the tank's content is liquid and one-third is solid. The remaining 750 gallons have been sampled and analyzed with results showing the only regulated waste to be corrosive. Based on WAC 173-303-090 (6)(a)(i), given an aqueous sample with a pH greater than or equal to 12.5, due to the sodium hydroxide content, the CX-70 tank has been assigned the dangerous waste number D002 for corrosive waste.

V. FACILITY 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

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 attached drawings and photos

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

VIII. FACILITY OWNER

[X] 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)*	SIGNATURE	DATE SIGNED
Michael J. Lawrence Manager, Richland Operations United States Department of Energy	Michael J. Lawrence	7-10-90

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)*	SIGNATURE	DATE SIGNED
SEE ATTACHMENT		

CONTINUE ON PAGE 5

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.

John E. Nolan

Co-operator
John E. Nolan, President
Westinghouse Hanford Company

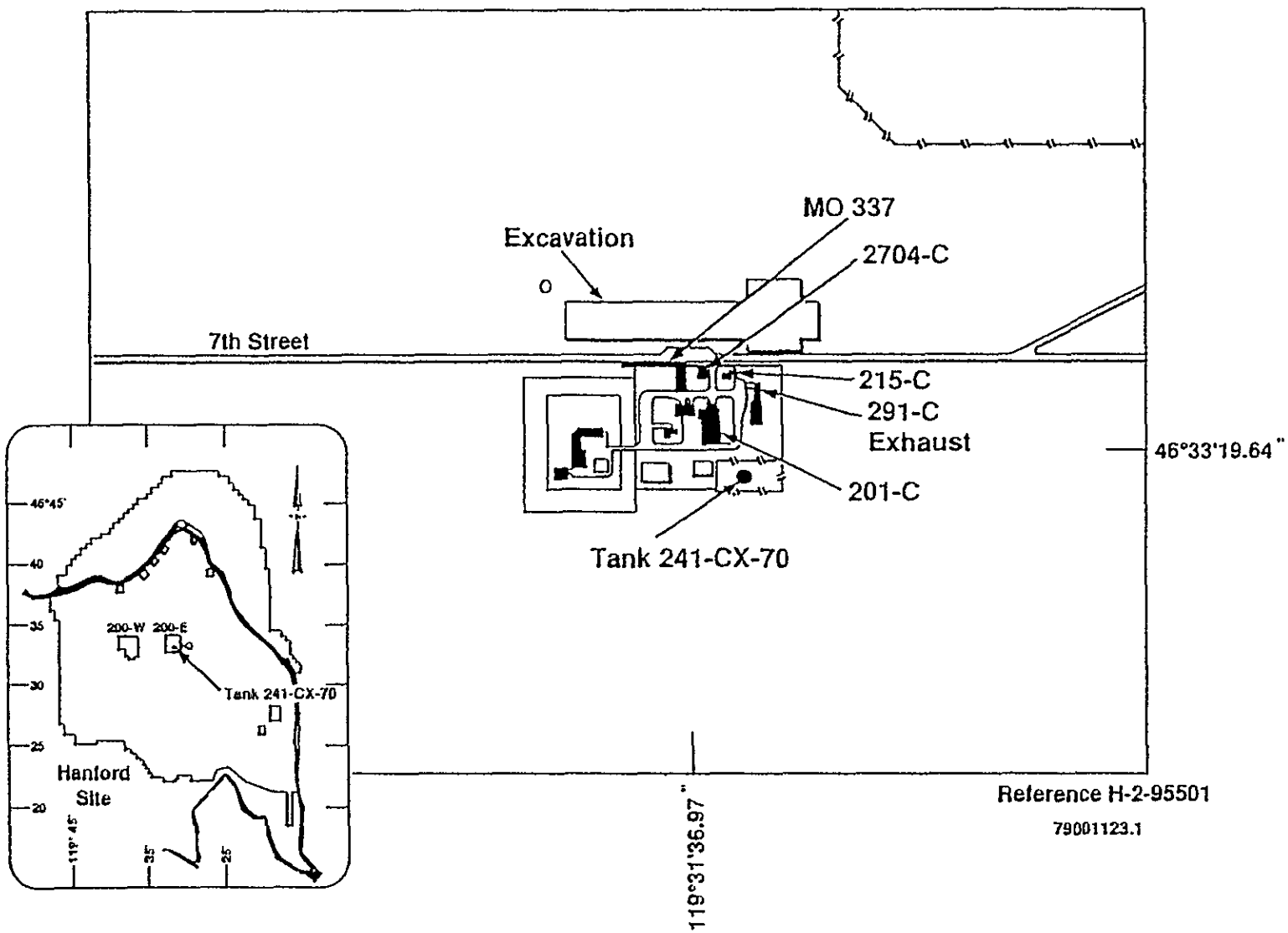
3/12/90
Date

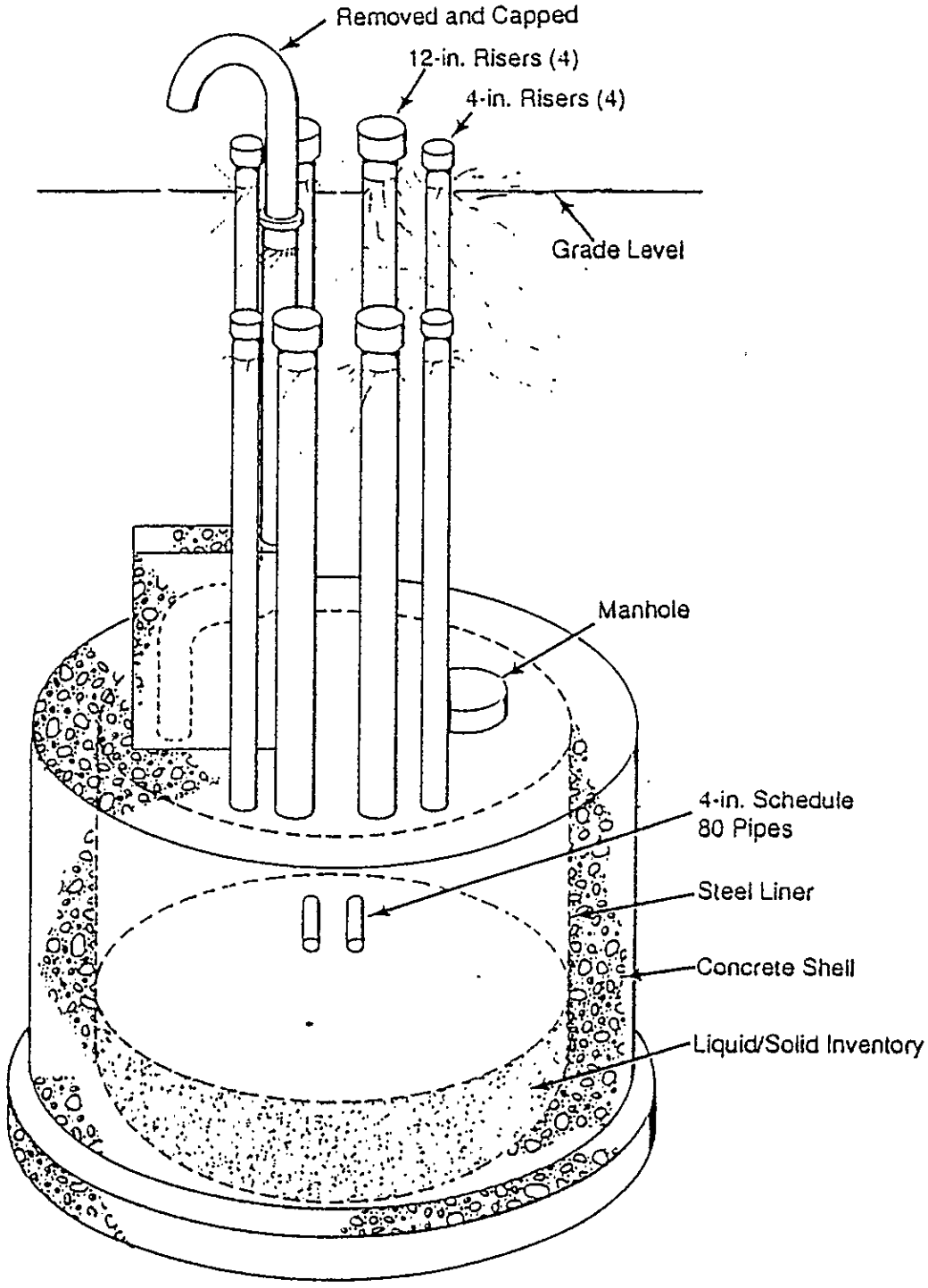
Michael J. Lawrence

Owner/Operator
Michael J. Lawrence, Manager
U.S. Department of Energy
Richland Operations Office

7/10/90
Date

241-CX-70 Underground StorageTank Site Plan





S9002047.1

Tank 241-CX-70

TANK 241-CX-70

46°33'20"
119°31'37"

127164-27CN
(PHOTO TAKEN 1986)

FORM 3

DANGEROUS WASTE PERMIT APPLICATION

I. EPA/STATE I.D. NUMBER: W A 7 8 9 0 0 0 8 9 6

FOR OFFICIAL USE ONLY

APPLICATION RECEIVED	DATE RECEIVED	COMMENTS

II. FIRST OR REVISED APPLICATION

Please enter "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 (please enter "X" below and provide the appropriate dates)

☐ 1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)

YR	MO	DAY
1 4		4 5

FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the dates to the left)

☐ 2. NEW FACILITY (Complete item below.)

YR	MO	DAY

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

B. REVISED APPLICATION (please enter "X" below and complete Section I above)

☒ 1. FACILITY HAS AN INTERIM STATUS PERMIT

☐ 2. FACILITY HAS A FINAL PERMIT

III. PROCESSES — CODES AND DESIGN 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. Two 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	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D80	GALLONS OR LITERS
LANDFILL	D81	ACRE-FEET (the volume that would cover one acre to a depth of one meter) 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

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
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

UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G
LITERS	L
CUBIC YARDS	Y
CUBIC METERS	C
GALLONS PER DAY	U

UNIT OF MEASURE	UNIT OF MEASURE CODE
LITERS PER DAY	V
TONS PER HOUR	O
METRIC TONS PER HOUR	W
GALLONS PER HOUR	E
LITERS PER HOUR	H

UNIT OF MEASURE	UNIT OF MEASURE CODE
ACRE-FEET	A
HECTARE-METER	B
ACRES	S
HECTARES	Q

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. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S 0 2	600	G	
X-2	T 0 3	20	E	
1	T 0 2	28,800,000	U	
2	D 8 4	28,800,000	G	
3				
4				
5				
6				
7				
8				
9				
10				

CONTINUE ON REVERSE

Continued from the front

III. PROCESSES (continued)

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

See Following Page

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)	D. PROCESSES 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

III. Processes (continued)

T02, D84

The 216-B-3 Pond System consists of the 216-B-3-3 Ditch and four interconnected ponds designated 216-B-3, 216-B-3A, 216-B-3B, and 216-B-3C. The pond system receives radioactive and non-radioactive process and cooling water from PUREX Plant, B-Plant, and other 200 Area facilities. Effluent is also received from the PUREX Plant chemical sewer by way of the 216-A-29 Ditch.

Historically, the pond system received corrosive waste as a result of regeneration of the PUREX Plant demineralizer columns (D84). Treatment of the waste occurred by the successive discharge of acidic and caustic waste, which served to neutralize the corrosivity of the waste prior to and upon reaching the pond. Residual corrosivity was neutralized by the calcareous nature of the pond soil (T02).

During peak facility operations, approximately 22,000,000 gallons per day was discharged into the pond system of which the dangerous waste/mixed waste constituted a very small fraction. Administrative and physical system modifications have subsequently been implemented to eliminate further discharge of dangerous waste/mixed waste into the pond system.

The process design capacity listed on page 1 represents the maximum volume of fluid that can be discharged by design to the pond system in a given 24 hour period, rather than the physical capacity of the unit.

Note: Additional waste codes (including listed waste) may be added to this Part A permit application based upon analytical results from the B-Pond waste stream characterization and other studies currently in progress.

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

I.D. NUMBER (enter from page 1)
WA7890008967

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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (If a code is not entered in D(1))
1	D002	120,700,000	P	T02 D84	Neutralization/Percolation
2	WT02	2,650,000	P		Included With Above
3	U133	1,895,000	P	T02 D84	Neutralization/Percolation
4	WT01	503,000	P	T02 D84	Neutralization/Percolation
5	D006	318,000	P		Included With Above
6					
7					
8					
9					
10					
11					
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IV. DESCRIPTION OF DANGEROUS WASTES (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM SECTION D(1) ON PAGE 2.

The 216-B-3 Pond System routinely received corrosive dangerous waste via the 216-A-29 Ditch. Waste consisted primarily of backwash resulting from the regeneration of demineralizer columns at the PUREX Plant. Additionally, the pond system received spills of dangerous waste/mixed waste from the PUREX Plant.

The quantity of waste specified for waste designated D002/WT02 is an estimated annual quantity of waste. Quantities of waste for wastes designated U133 and WT01/D006 represent the total recorded volume of waste discharged into the pond system since the PUREX plant resumed operations in 1983.

V. FACILITY 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

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures, disposal station, 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 attached drawings and photographs

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

VIII. FACILITY OWNER

[X] 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. STATE	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)	SIGNATURE	DATE SIGNED
Michael J. Lawrence Manager, Richland Operations United States Department of Energy	Edward A. Fitzgerald	3/21/90

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)	SIGNATURE	DATE SIGNED
SEE ATTACHMENT		

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.

John E Nolan

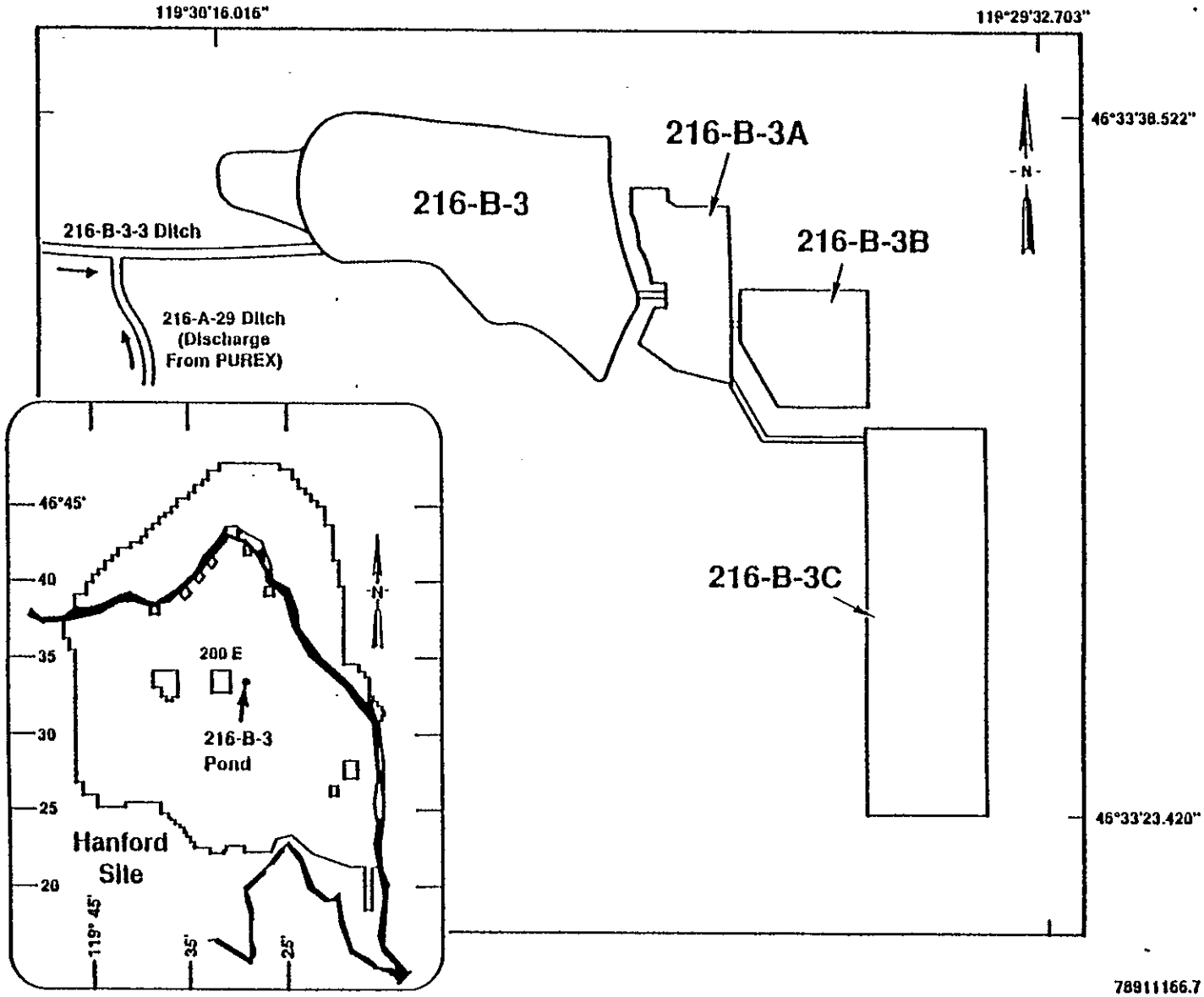
Co-operator
John E. Nolan, President
Westinghouse Hanford Company

3/26/90
Date

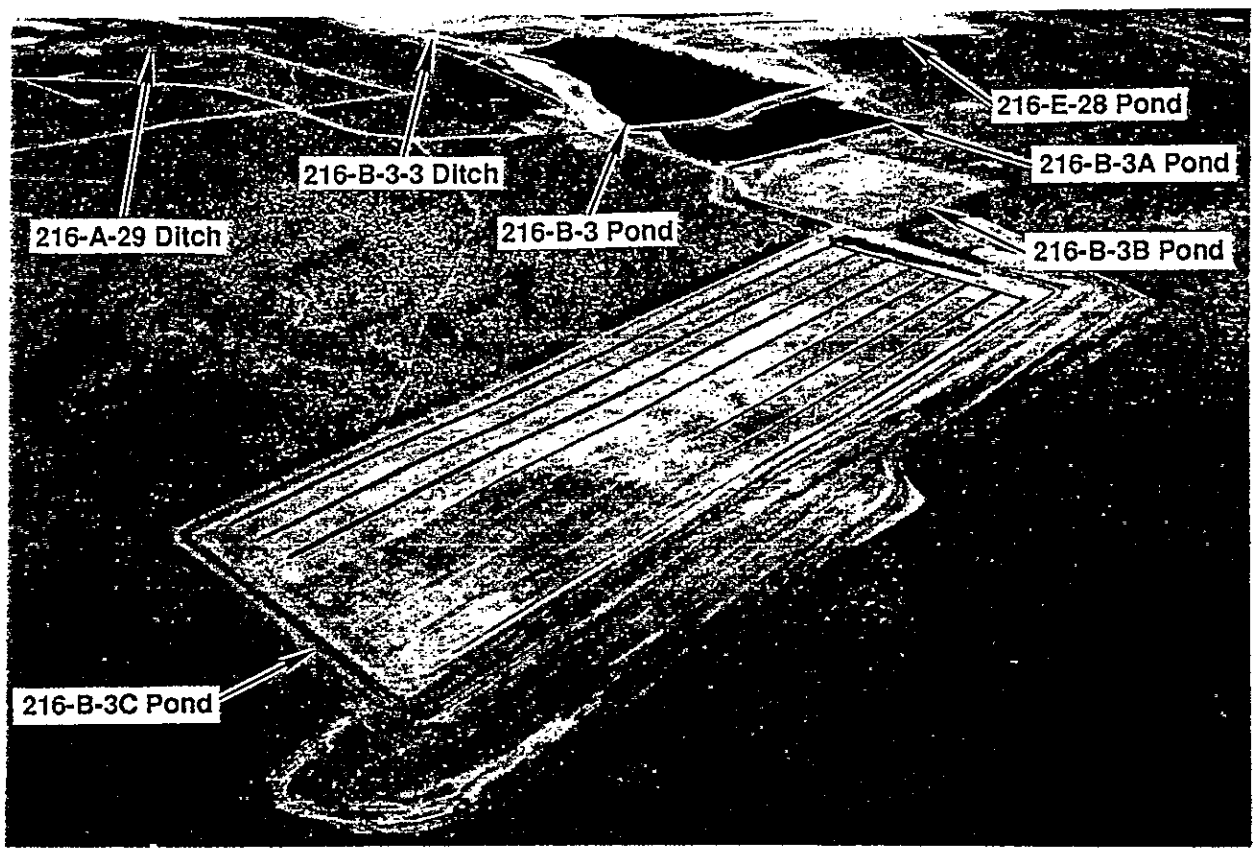
Owner/Operator
Michael J. Lawrence, Manager
U.S. Department of Energy
Richland Operations Office

3/21/90
Date

216-B-3 Pond System



216-B-3 POND SYSTEM



46°33′38.522"
46°33′23.420"
119°30′16.016"
119°29′32.703"

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

FORM 3

DANGEROUS WASTE PERMIT APPLICATION

I. EPA/STATE I.D. NUMBER: W A 7 8 9 0 0 0 8 9 6 7

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (mo., day, & yr.)	COMMENTS

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)

☐ 1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)

☐ 2. NEW FACILITY (Complete item below.)

FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left): MO 0 1 DAY YR 7 2

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

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

☒ 1. FACILITY HAS AN INTERIM STATUS PERMIT

☐ 2. FACILITY HAS A FINAL PERMIT

III. PROCESSES — CODES AND DESIGN 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	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
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

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
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

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

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. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S 0 2	600	G		5				
X-2	T 0 3	20	E		6				
1	S 0 1	1100	G		7				
2	T 0 4	550	U		8				
3					9				
4					10				

CONTINUE ON REVERSE

Continued from the front

II. PROCESSES (continued)

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

T04, S01

The 304 Concretion Facility consists of a container storage pad and a concrete mixer that were used to treat radioactive mixed wastes generated during the fuel fabrication process in the 313 and 333 buildings from January 1972 through December 1986. The wastes were concreted into 30 and 55 gallon Department of Transportation 17-H containers (drums) using masonry cement to encapsulate the wastes in solid concrete blocks and eliminate the hazard of ignitability. Approximately ten 30 or 55 gallon drums could be concreted at the facility each day.

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 sludge 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 codes)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K 0 3 2	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	200	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

CONTINUE ON PAGE 3

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

ID NUMBER (enter from page 1)

WA7890008967

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. PROCESS CODES (enter)				D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	D001	20,000	P	S01	T04			Storage/Solidification
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
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15								
16								
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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

The 304 Concretion Facility was used for the treatment of dangerous wastes produced during the fuel fabrication process. These wastes consist of beryllium/Zircaloy-2 chips and Zircaloy-2 chips and fines. These wastes exhibit the dangerous waste characteristic of ignitability (D001). Approximately 20,000 pounds of dangerous wastes can be treated at the facility each year.

V. FACILITY 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

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 attached drawings and photos

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

VIII. FACILITY OWNER

[X] 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. STATE	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)	SIGNATURE	DATE SIGNED
Michael J. Lawrence Manager, Richland Operations United States Department of Energy	Michael J. Lawrence	6-21-90

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)	SIGNATURE	DATE SIGNED
SEE ATTACHMENT		

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.

John E. Nolan

Co-operator
John E. Nolan, President
Westinghouse Hanford Company

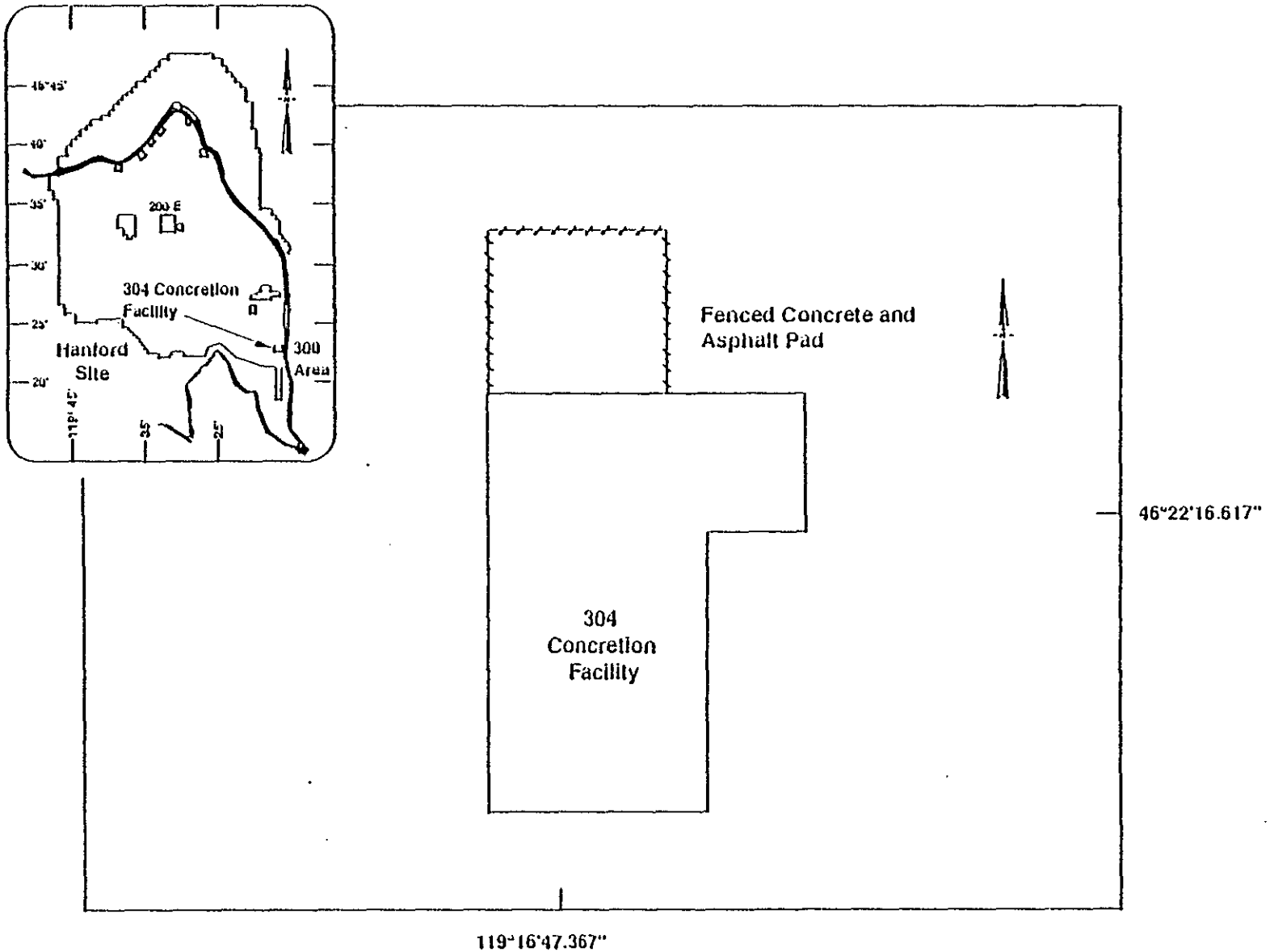
4/17/90
Date

Michael J. Lawrence

Owner/Operator
Michael J. Lawrence, Manager
U.S. Department of Energy
Richland Operations Office

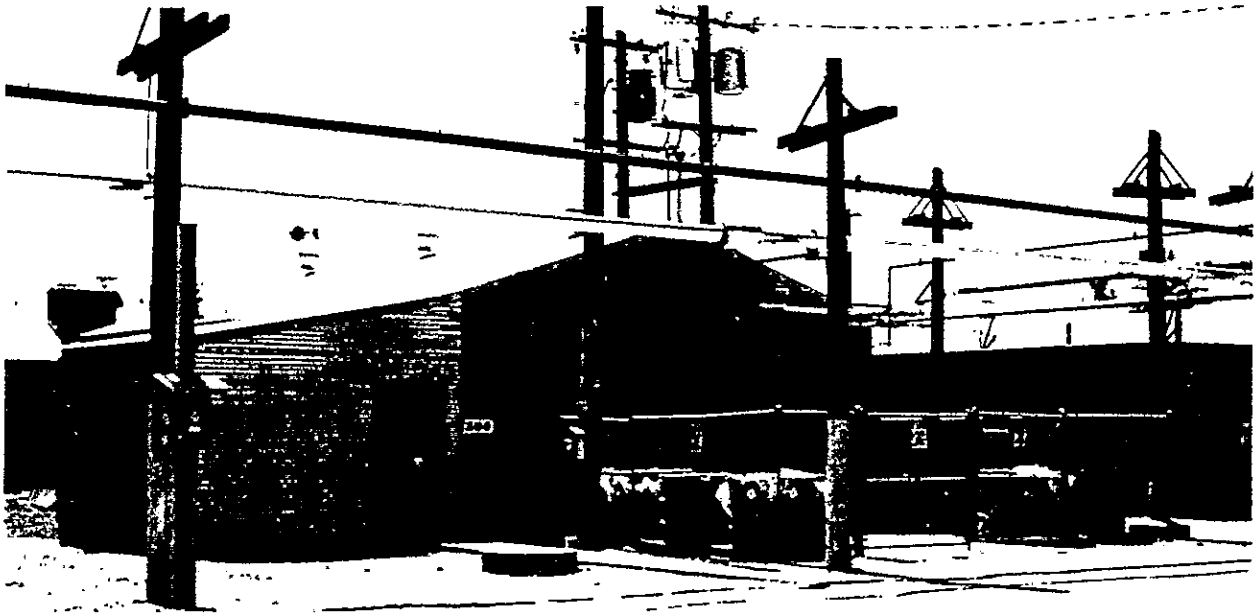
6-21-90
Date

304 Concretion Facility

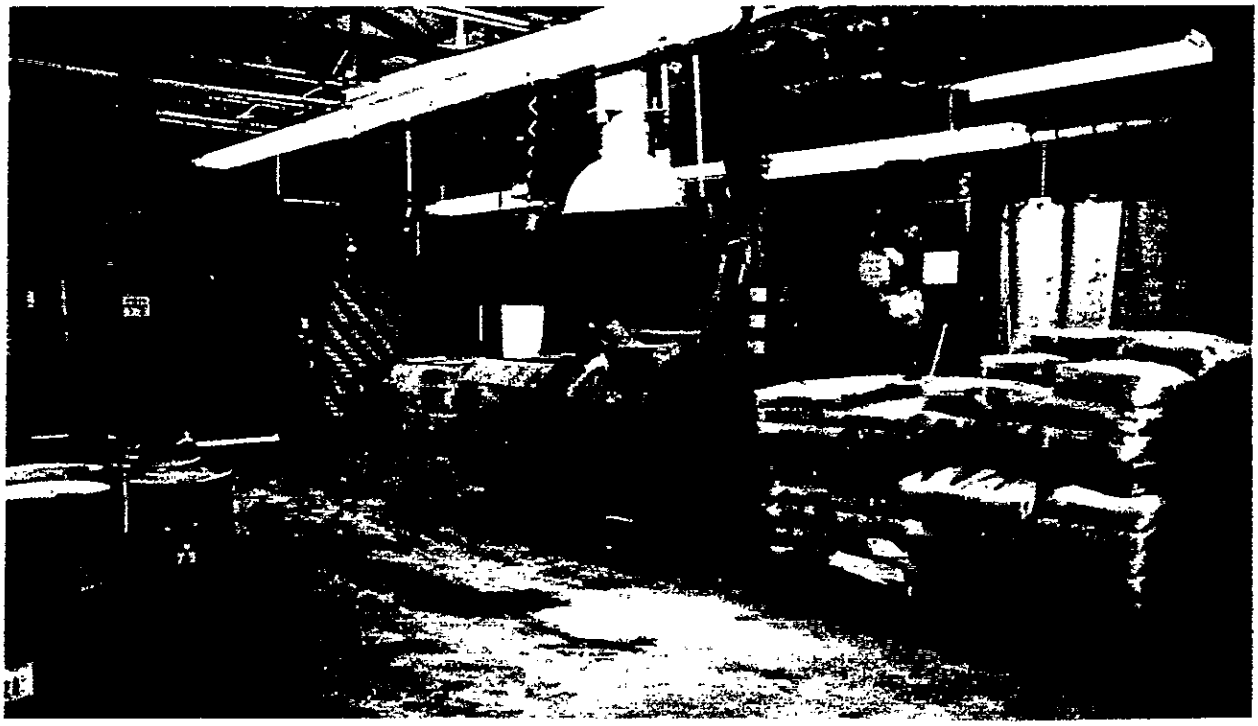


79003206

304 CONCRETION FACILITY



BUILDING/STORAGE AREA 8605309-7CN



CONCRETION UNIT 8605309-1CN

46°35'24.76"
119°16'47.367"

FORM 3

DANGEROUS WASTE PERMIT APPLICATION

I. EPA/STATE I.D. NUMBER: W A 7 8 9 0 0 0 3 9 5

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED	COMMENTS

II. FIRST OR REVISED APPLICATION

A. FIRST APPLICATION (Mark an "X" below and provide the requested data)

☐ 1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)

* 7 5 — FOR EXISTING FACILITY, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (Mark one choice in box only)

☐ 2. NEW FACILITY (Complete item below.)

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

B. REVISED APPLICATION (Mark an "X" below and complete item below.)

☒ 1. FACILITY HAS AN INTERIM STATUS PERMIT

☐ 2. FACILITY HAS A FINAL PERMIT

III. PROCESSES — CODES AND DESIGN 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. Two lines are provided for entering codes. If more lines are needed, enter the code(s) in the remarks 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 Continuation Sheet.

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	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D80	GALLONS OR LITERS
LANDFILL	D81	ACRE-FEET (The volume that would cover the area 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

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
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. Continue on Sheet B-C.)	T04	GALLONS PER DAY OR LITERS PER DAY

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

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. PROCESS CODE (Enter code)	B. PROCESS DESIGN CAPACITY: 1. AMOUNT (Specify)	B. PROCESS DESIGN CAPACITY: 2. UNIT OF MEASURE (Enter code)	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (Enter code)	B. PROCESS DESIGN CAPACITY: 1. AMOUNT (Specify)	B. PROCESS DESIGN CAPACITY: 2. UNIT OF MEASURE (Enter code)	FOR OFFICIAL USE ONLY
X-1	S02	600	G		5				
X-2	T03	20	E		6				
1	T01	220	U		7				
2	S01	220	G		8				
3	* Information concerning the date of initial operation of this unit is not available.								
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.

T01, S01 - The 300 Area Solvent Evaporator was a treatment tank that was used to treat radioactively contaminated spent solvents. These solvents were generated in the fuel fabrication process at the 300 Area. The solvents consisted mainly of spent trichloroethylene, perchloroethylene, 1,1,1-trichloroethane and an ethyl acetate-bromine solution. Non-radioactive paint shop solvents that were potentially treated include methyl ethyl ketone, methylene chloride and petroleum naphtha. Treatment of the wastes occurred by evaporation in a Brooks Load Lugger tank with steam coils located on the side of the tank (T01). The unit was used to treat approximately 600 gallons of dangerous wastes per year. This unit has not received dangerous wastes since November 1985 and the site will be closed under interim status.

A portion of the open air concrete pad adjacent to the 334-A Building (333 East Pad) was used periodically for storage of the Solvent Evaporator and radioactively contaminated spent solvents in DOT-specification 55 gallon steel drums (S01). The drums were temporarily stored on the concrete pad north of the Solvent Evaporator sites until the waste solvents were placed in the Solvent Evaporator. No part of the overlying concrete that was placed above most of the 333 East Pad in 1984 was used for storage or treatment of the 300 Area Solvent Evaporator wastes.

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 in order)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a space 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

CONTINUE ON PAGE 3

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

I.D. NUMBER (enter from page 1): WA7890008967

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

LINE	A. DANGEROUS WASTE NO. (enter codes)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (If a code is not entered in D(1))
1	F001	7700	P	T01 S01	Evaporation/Container Storage
2	F002	↓	↓	↓	↓
3	F003	↓	↓	↓	↓
4	F005	↓	↓	↓	↓
5	WP01	↓	↓	↓	↓
6	WC01	↓	↓	↓	↓
7	WT01	↓	↓	↓	↓
8	0001	↓	↓	↓	Included With Above
9					
10					
11					
12					
13					
14					
15					
16					
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IV. DESCRIPTION OF DANGEROUS WASTES (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM SECTION D(1) ON PAGE 2.

The 300 Area Solvent Evaporator was used for the treatment of radioactively contaminated solvents generated during the fuel fabrication efforts and associated processes. Approximately 7700 pounds of waste were treated in the Solvent Evaporator each year.

The storage pad was used to temporarily store radioactively contaminated solvent waste until the solvent could be treated in the Solvent Evaporator.

V. FACILITY 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

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 attached drawings and photographs

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", please 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. STATE	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)	SIGNATURE	DATE SIGNED
Michael J. Lawrence Manager, Richland Operations United States Department of Energy	Michael J. Lawrence	3-27-90

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)	SIGNATURE	DATE SIGNED
SEE ATTACHMENT		

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.

John E. Nolan

Co-operator
John E. Nolan, President
Westinghouse Hanford Company

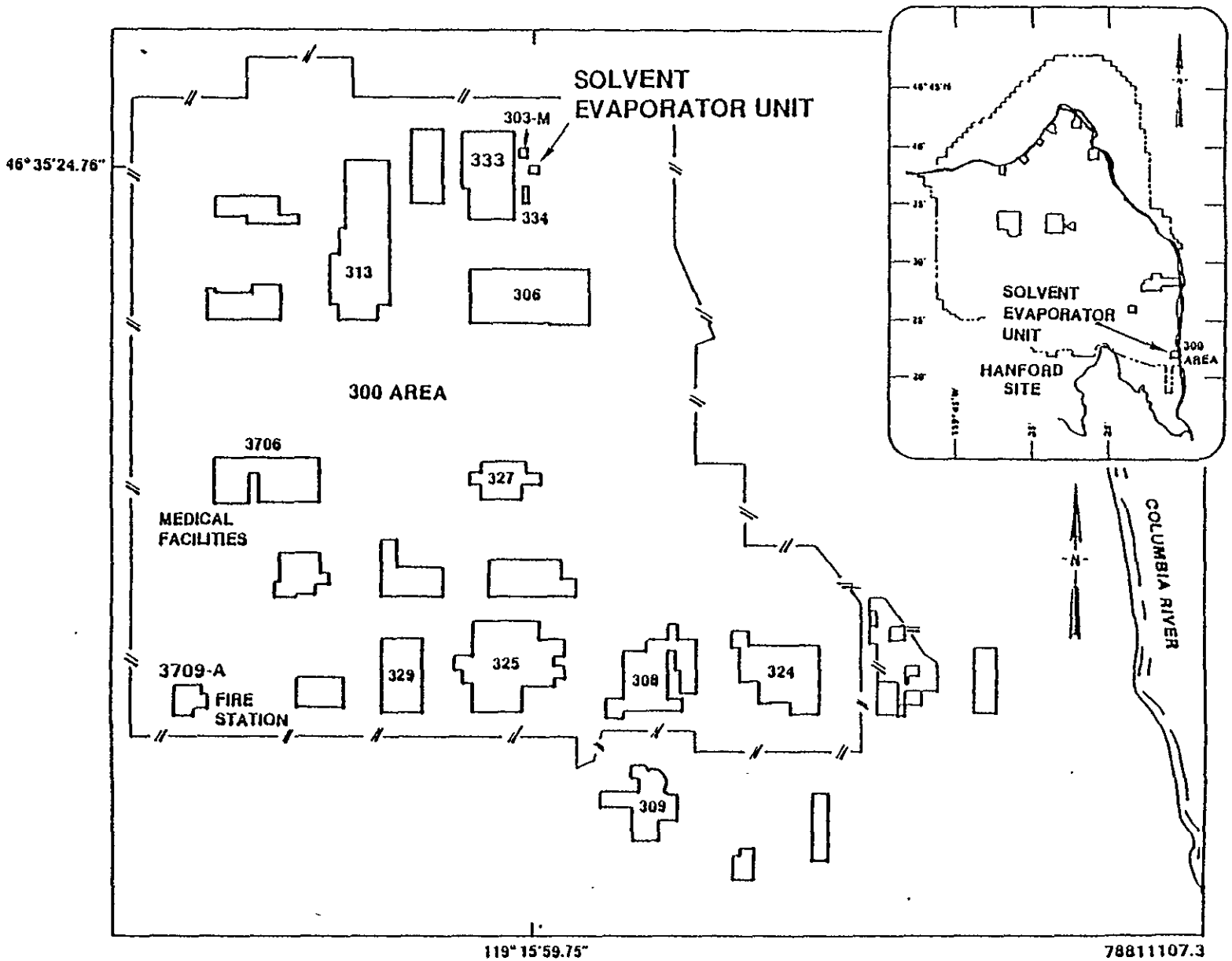
3/5/90
Date

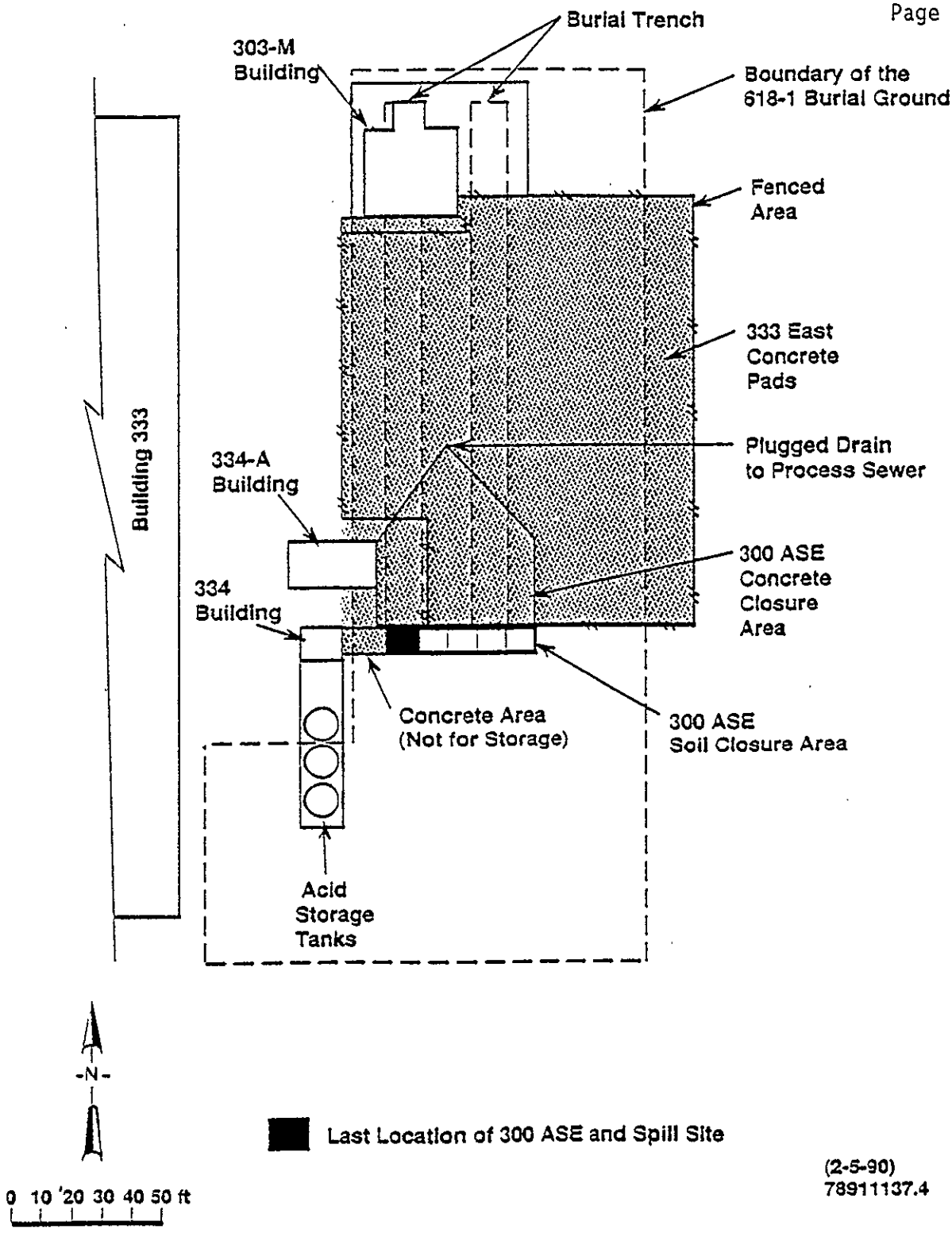
Michael J. Lawrence

Owner/Operator
Michael J. Lawrence, Manager
U.S. Department of Energy
Richland Operations Office

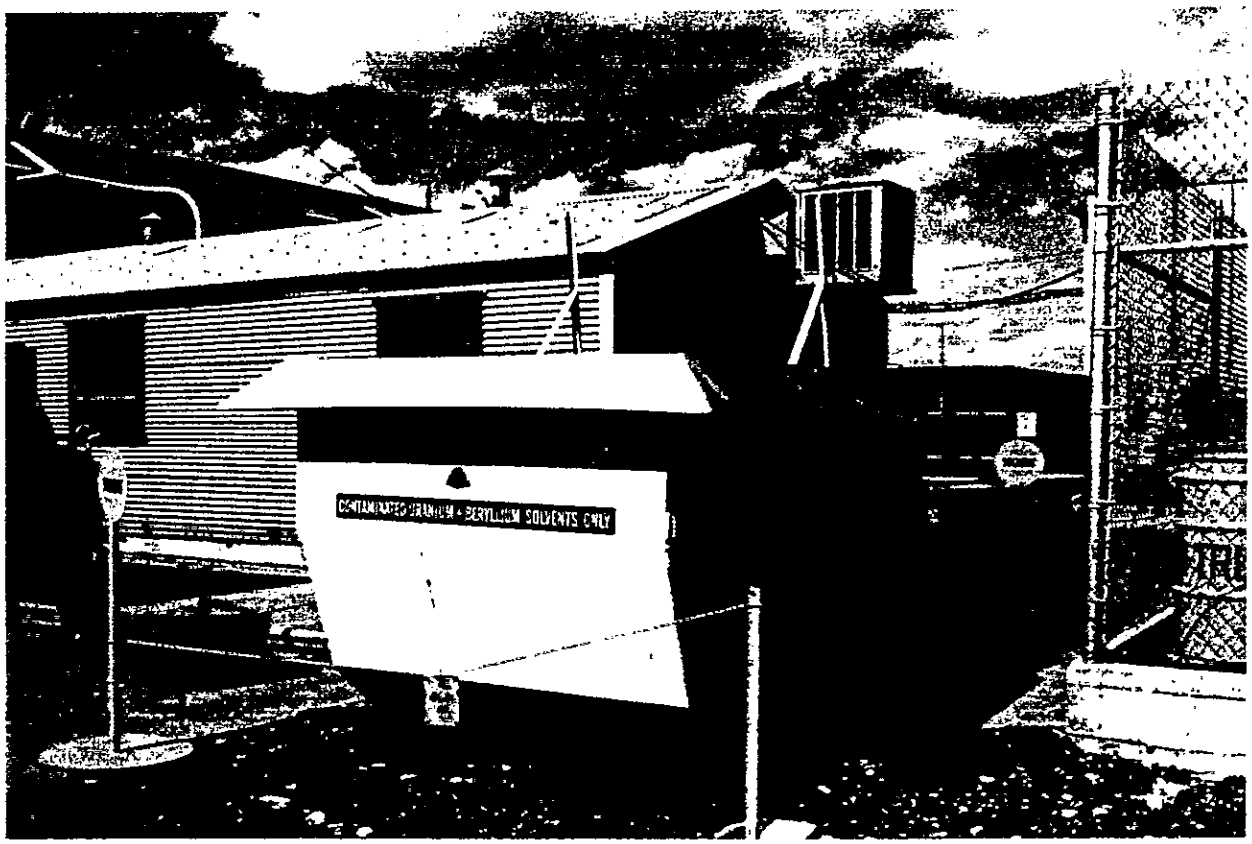
3-27-90
Date

300 AREA SOLVENT EVAPORATOR UNIT




Burial Trench
303-M Building
Boundary of the 618-1 Burial Ground
Fenced Area
333 East Concrete Pads
Building 333
Plugged Drain to Process Sewer
334-A Building
300 ASE Concrete Closure Area
334 Building
Concrete Area (Not for Storage)
300 ASE Soil Closure Area
Acid Storage Tanks
-N-
Last Location of 300 ASE and Spill Site
0 10 20 30 40 50 ft
(2-5-90)
78911137.4

300 AREA SOLVENT EVAPORATOR UNIT



46°35'24.76"
119°15'59.75"

8507636-3CN
(PHOTO TAKEN 1985)

Please print or type in the unshaded areas only
(Shaded areas are reserved for elite type, i.e., 12 characters/inch)

FORM 3

DANGEROUS WASTE PERMIT APPLICATION

I. EPA/STATE I.D. NUMBER: W A 7 8 9 0 0 0 8 9 6 7

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (mo., day, & yr.)	COMMENTS

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)

☐ 1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)

* MO. DAY YR. — FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (see the notes in the left)

☐ 2. NEW FACILITY (Complete item below.)

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)

☒ 1. FACILITY HAS AN INTERIM STATUS PERMIT

☐ 2. FACILITY HAS A FINAL PERMIT

III. PROCESSES — CODES AND DESIGN 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	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
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

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
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

UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G
LITERS	L
CUBIC YARDS	Y
CUBIC METERS	C
GALLONS PER DAY	U

UNIT OF MEASURE	UNIT OF MEASURE CODE
LITERS PER DAY	V
TONS PER HOUR	O
METRIC TONS PER HOUR	W
GALLONS PER HOUR	E
LITERS PER HOUR	H

UNIT OF MEASURE	UNIT OF MEASURE CODE
ACRE FEET	A
HECTARE METER	F
ACRES	B
HECTARES	Q

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. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	T01	200	G		X-2	S02	400	G	
X-2	T03	20	H						

* 300 AWATS and Tank 40 began operations 04-73, Tank 50, auxiliary equipment and centrifuge began operations 11-85.

300 Area Waste Acid Treatment System						311 Tanks					
1	T01	3700	U			1	T01	5000	G		
2	S02	4360	G			2	S02	9000	G		
3	T04	4200	U								

CONTINUE ON REVERSE

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.

SEE ATTACHMENT

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)	D. PROCESSES 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

CONTINUE ON PAGE 3

Section III.C - Processes

T01, S02, T04 - The 300 Area Waste Acid Treatment System was used for the storage and treatment of mixed waste generated during the fuel fabrication operation in the 300 Area of the Hanford Site. The system was also used for disposing of used and/or unneeded chemicals for all the Hanford contractors. A portion of the waste was initially treated from May 1983 to January 1987 in two tanks (Tanks 7 and 11) in the 333 building to reduce the chromium (VI) to chromium (III). Tanks 7 and 11 were used twice a year to treat up to 200 gallons per day of waste (T01). This waste, along with all other waste acid generated in the 333 building, was drained to the 334-A building and stored in two storage tanks (Tanks B and C) (S02) with a combined total of 4,000 gallons. Previously, wastes entered the 334-A building passing through a settling tank (Tank A, volume 360 gallons) prior to entering Tanks B and C. Tank A ceased receiving waste in August 1984 when piping was disconnected to the tank and waste was routed directly to Tanks B and C. Tank A was cleaned out and the PVC liner removed in 1988.

From startup in April 1973 until August 1973, the waste acids from the 333 building were collected in a plastic-lined steel underground 3,800 gallon tank and a plastic-lined steel above ground 6,000 gallon tank (Tank 4) in the 334 Tank Farm. At that time the underground tank developed a leak and was removed from service. The 334-A building with storage tanks replaced this underground tank in December 1974. Tank 4 was retained for emergency storage when the 313 building neutralization facility was down for maintenance or revisions. Tank 4 was usually empty and, when it was filled in January 1986, developed a leak near the top of the tank. Tank 4 was emptied and abandoned at the time and was removed, cleaned and buried in 1988.

The waste acid was than pumped from the 334-A building to the 313 building where the waste acid underwent pH adjustments in a waste acid neutralization tank (Tank 2) (T01). Tank 2 was capable of treating a maximum of 3,500 gallons per day of waste acid. The waste acid was then pumped from Tank 2 to the centrifuge where the waste acid underwent further treatment to separate the liquid and solid phases of the waste acid (T04). A maximum of 3,000 gallons of waste acid per day could be treated in the centrifuge. The solid wastes from the centrifuge were collected in drums and were transferred to the 303-K Radioactive Mixed-Waste Storage Facility (303-K Storage Facility). The liquid effluent was pumped from the centrifuge to a filter press for additional treatment to remove fine solids (T04) which remain following treatment in the centrifuge. The filter press can treat a maximum of 1,200 gallons per day. Solids collected in the filter press were sent to the uranium recovery system or to the 303-K Storage Facility. The filtered liquid effluent was drained into effluent collection tanks (Tanks 9 and 10) where the liquid effluent was temporarily stored prior to being pumped to the 311 Tanks.

Section III.C - Processes (continued)

T01,S02 - The 311 Tanks were used for the storage of the treated liquid effluents from both the 300 Area Waste Acid Treatment System and the 300 Area uranium recovery process. Storage occurred in two tanks (Tanks 40 and 50) with capacities of 4,000 and 5,000 gallons, respectively. Tanks 40 and 50 are constructed of stainless steel. Tank 50, the 5,000 gallon tank, was occasionally used for decanting wastes when the centrifuge in the 313 building was down for maintenance. Tank 50 was capable of treating up to 5,000 gallons per day, but was used for decanting on an infrequent basis (total of five times between January 1986 and December 1987).

Auxiliary equipment (two pumps, two cartridge filters and two sample ports) are housed in the adjacent 303-F building. They were used to filter solutions and to recirculate the solutions between tanks and the 313 building for reprocessing.

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

I.D. NUMBER (enter from page 1): WA7890008967

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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (If a code is not entered in D(1))
		300 Area Waste Acid Treatment System			
2	D001	4,600,000	P	T01 S02 T04	pH Adjustments/Storage/
3	D002				Phase Separation
4	WT02				
5	D004				
6	D005				
7	D006				
8	D007				
9	D008				
10	D009				
11	D011				
12	P120				
13	U123				Included With Above
14	D007	2,000	P	T01	Chemical Treatment
		311 Tanks			
16	WT02	4,600,000	P	T01 S01	Decanting/Storage
17	D002				
18	D004				
19	D005				
20	D006				
21	D007				
22	D008				
23	D009				
24	D011				Included With Above
25					
26					

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

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

The 300 Area Waste Acid Treatment System was used to process mixed wastes generated during the fuels fabrication operation to make the wastes more amenable to storage and further treatment. These wastes consist of hydrofluoric acid, nitric acid, sulfuric acid, copper nitrate, and chromic acid. These routine wastes exhibited the dangerous waste characteristics of corrosivity (D002) and ignitability (D001) since the nitric acid is considered an oxidizer if over 40% concentration. These routine wastes were also considered toxic under the dangerous waste mixtures designation (WT02). Additionally, some of the routine wastes were designated CP Toxic waste due to chromium (D007). Nonroutine wastes added to the system included CP Toxic waste due to arsenic (D004), barium (D005), cadmium (D006), lead (D008), mercury (D009), and silver (D011). The nonroutine wastes also consisted of Discarded Chemical Products formic acid (U123) and vanadium pentoxide (P120). Approximately 4,600,000 pound of wastes were treated and stored in this system a year. Approximately 2,000 pounds of waste (D007, chromium VI to chromium III) were treated per year.

The 311 Tanks were used for the treatment and storage of over-neutralized wastes. These wastes were the effluents from the waste acid treatment and uranium recovery process. These wastes were, depending upon the variations in the treatment process, considered mixed and dangerous waste due to toxicity under the mixture rule (WT02). Routine and nonroutine wastes added to the waste acid treatment system included CP Toxic waste due to arsenic (D004), barium (D005), cadmium (D006), chromium (D007), lead (D008), mercury (D009), and silver (D011). The over-neutralized waste frequently had a pH greater than 12.5 which exhibits the dangerous waste characteristic of corrosivity (D002). Approximately 4,600,000 pounds of wastes were treated and stored in the 311 Tanks per year.

V. FACILITY DRAWING

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

VI. 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 attached drawings and photos

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

VIII. FACILITY OWNER

[X] 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)	SIGNATURE	DATE SIGNED
Michael J. Lawrence Manager, Richland Operations United States Department of Energy	Michael J. Lawrence	6-29-90

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)	SIGNATURE	DATE SIGNED
SEE ATTACHMENT		

CONTINUE ON PAGE 5

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.

Roger C Nichols — 5/31/90

Co-operator
Roger C. Nichols, President
Westinghouse Hanford Company

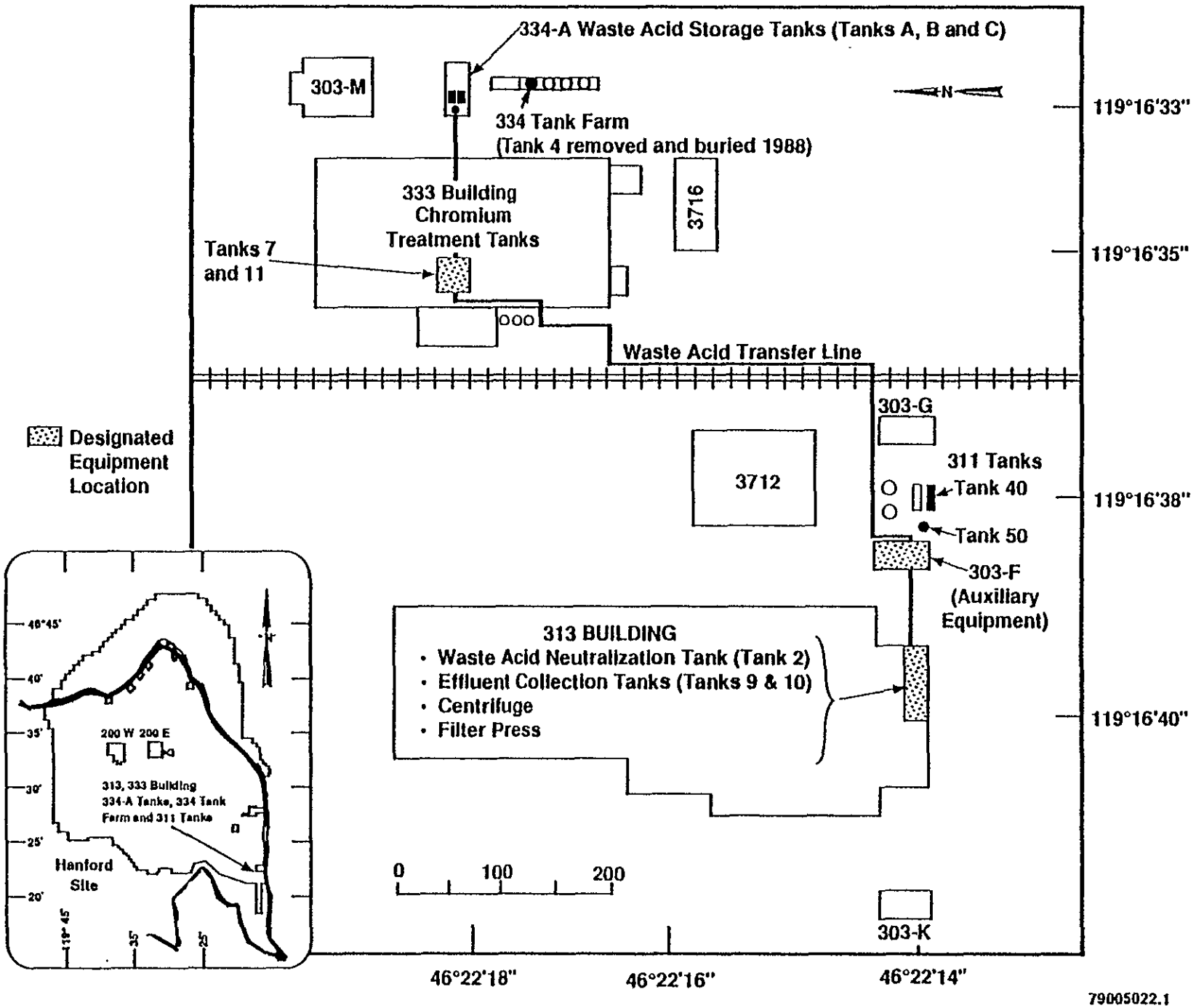
Date

Michael J. Lawrence — 6-29-90

Owner/Operator
Michael J. Lawrence, Manager
U.S. Department of Energy
Richland Operations Office

Date

300 Area Waste Acid Treatment System



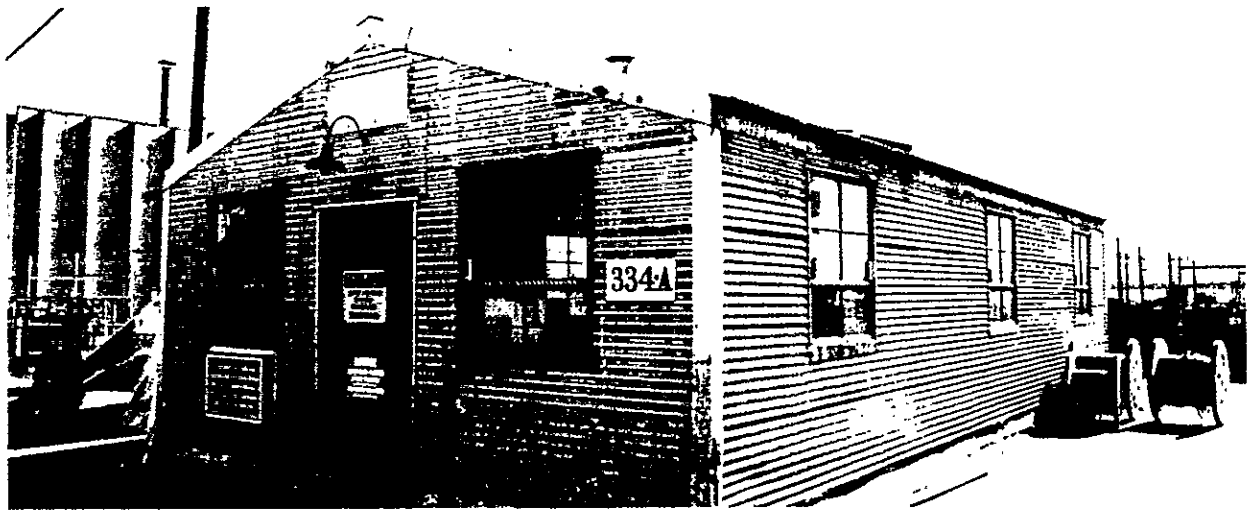
300 AREA WASTE ACID TREATMENT SYSTEM
333 BUILDING

TANKS 7 AND 11--CHROMIUM (VI) REDUCTION

46°22'18"
119°16'35"

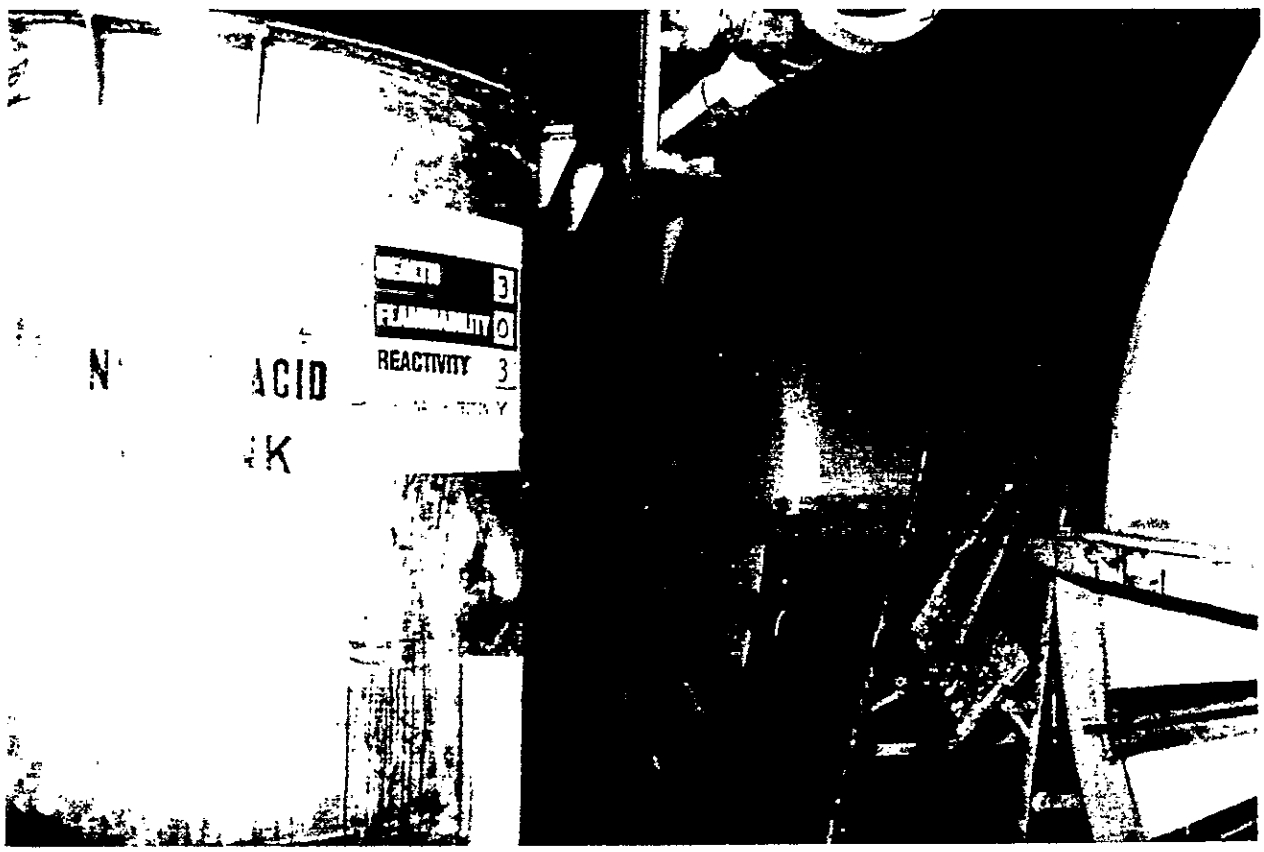
8704683-3CN
(PHOTO TAKEN 1987)

300 AREA WASTE ACID TREATMENT SYSTEM



334-A BUILDING

8704479-1CN
(PHOTO TAKEN 1987)

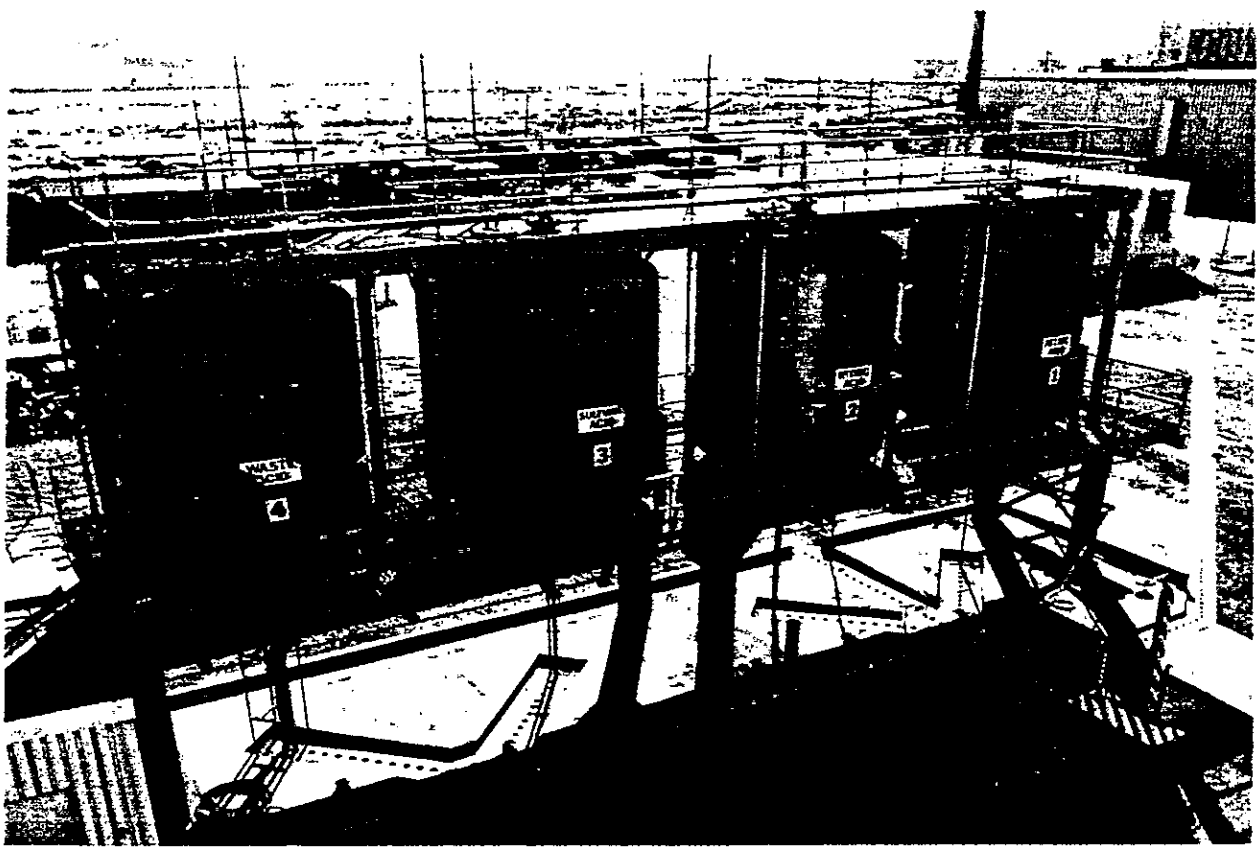


334-A WASTE ACID STORAGE TANKS--TANKS A, B, AND C
(TANK A OUT OF SERVICE 1988)

89050353-2CN
(PHOTO TAKEN 1989)

46°22'18"
119°16'33"

300 AREA WASTE ACID TREATMENT SYSTEM
334 TANK FARM

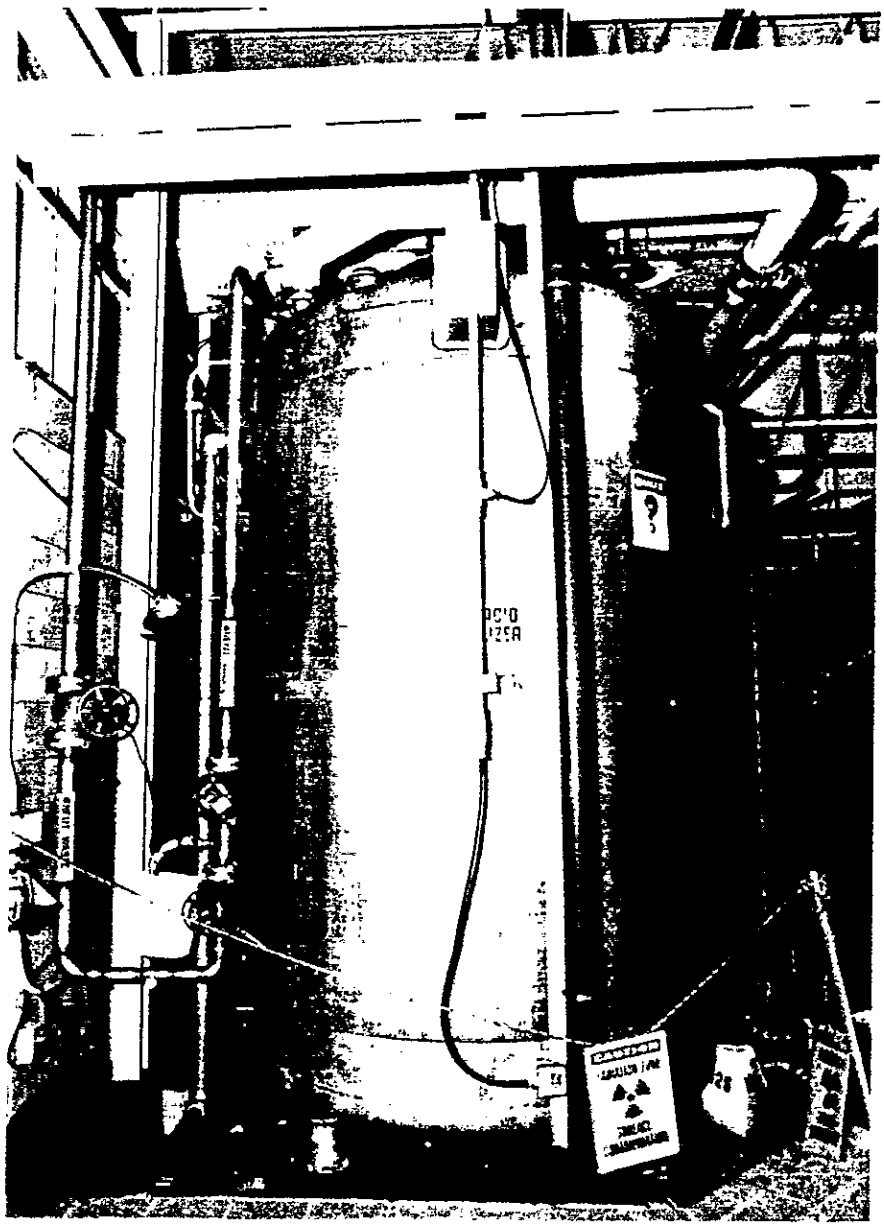


WASTE ACID TANK 4 (REMOVED, CLEANED AND BURIED 1988)

46°22'18"
119°16'35"

8306387-6CN
(PHOTO TAKEN 1983)

300 AREA WASTE ACID TREATMENT SYSTEM
313 BUILDING
WASTE ACID NEUTRALIZATION TANK

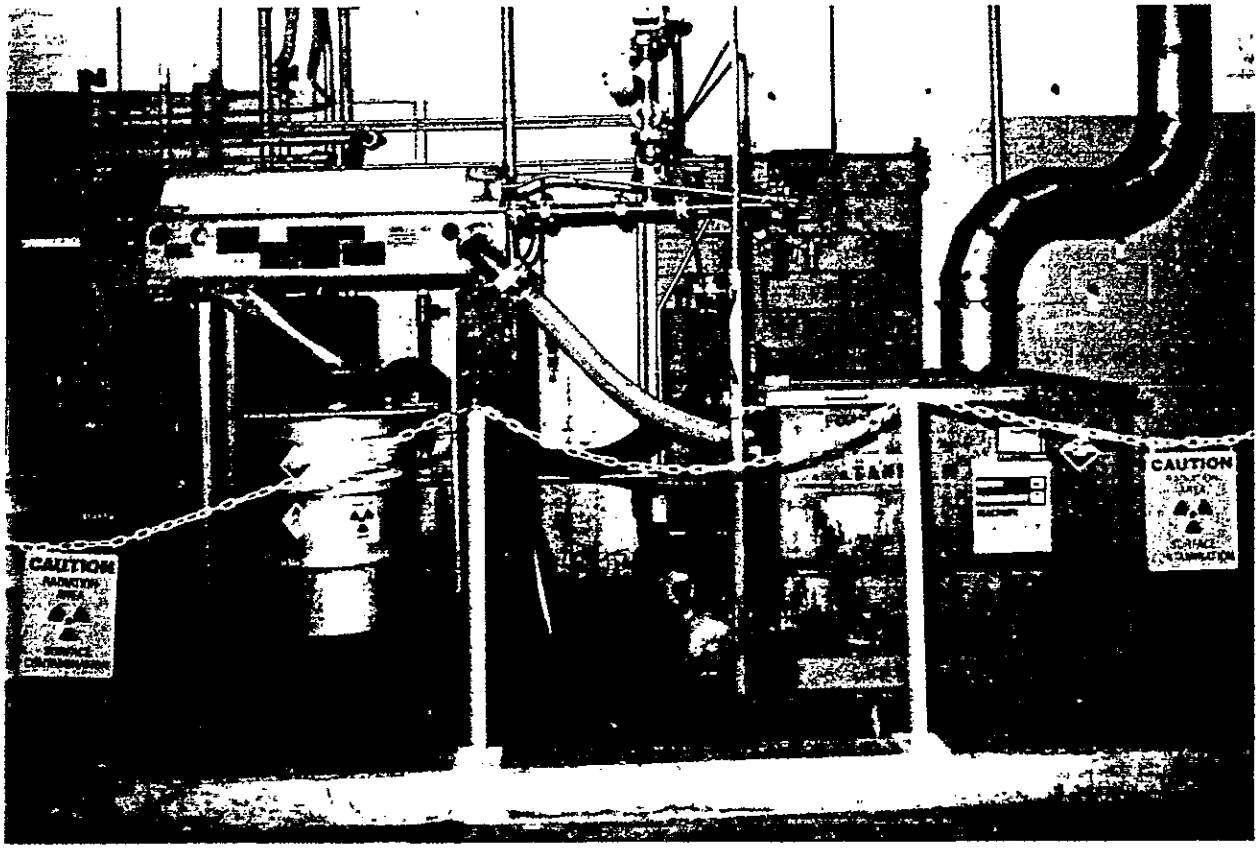


TANK 2

8704479-6CN
(PHOTO TAKEN 1987)

46°22'14"
119°16'40"

300 AREA WASTE ACID TREATMENT SYSTEM
313 BUILDING

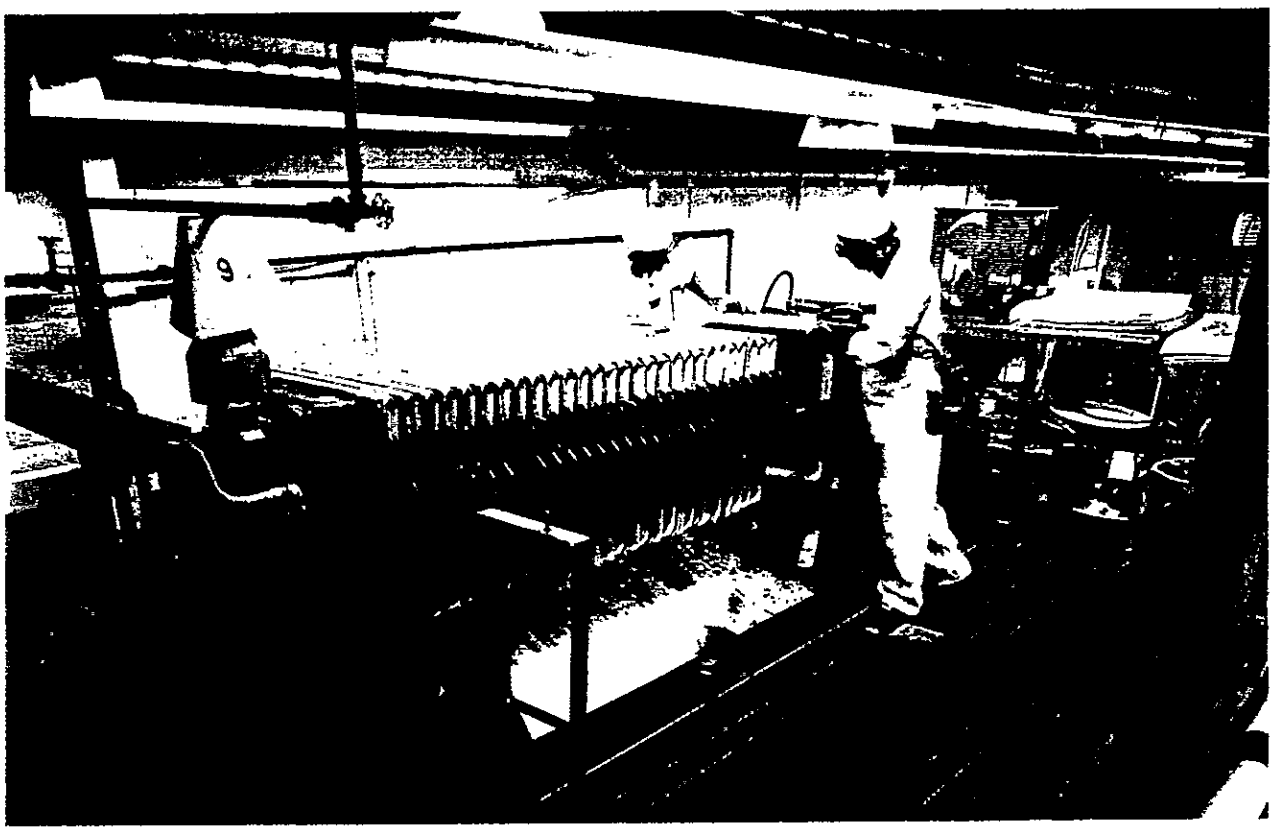


CENTRIFUGE WITH LIQUID RECEIVING TANK

46°22'14"
119°16'40"

89050353-15CN
(PHOTO TAKEN 1989)

300 AREA WASTE ACID TREATMENT SYSTEM
313 BUILDING

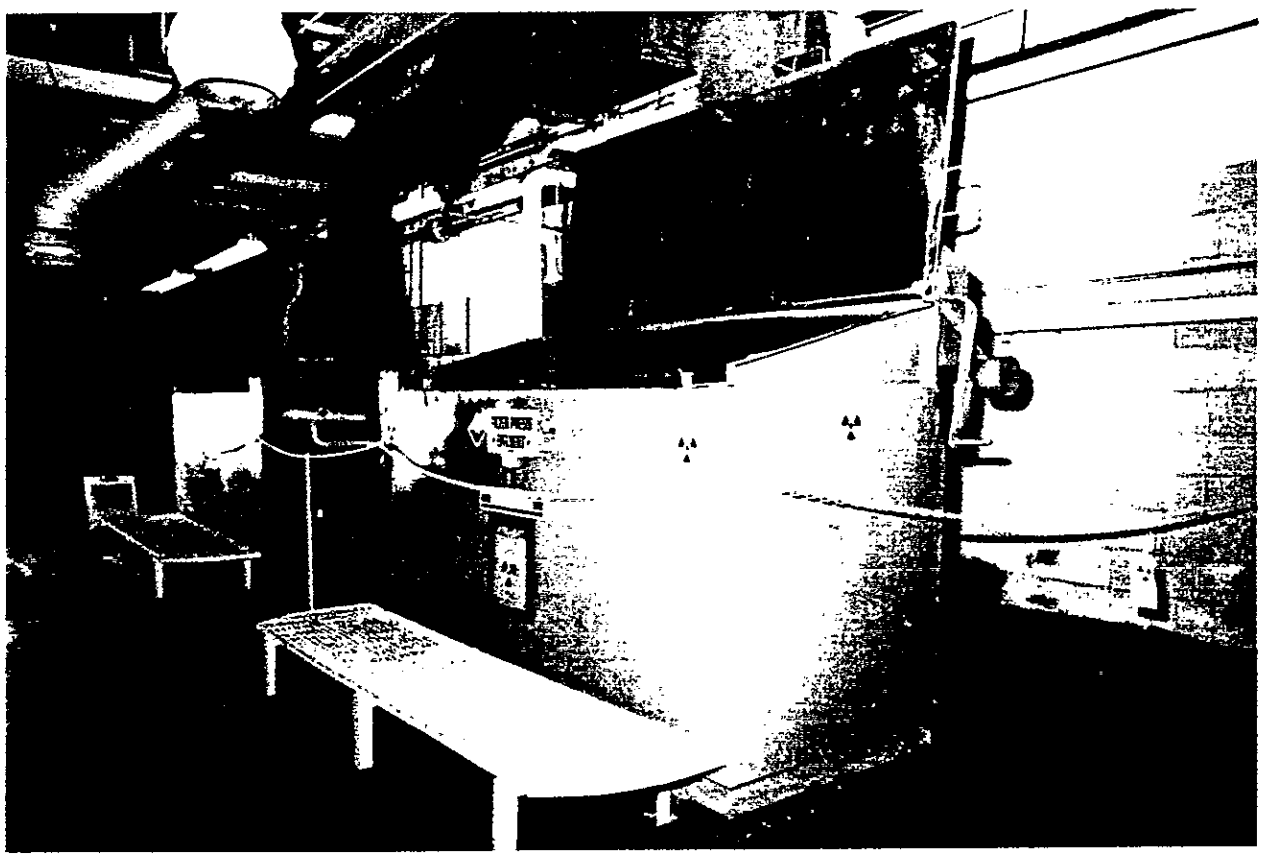


FILTER PRESS

46°22'14"
119°16'40"

7510170-19CN
(PHOTO TAKEN 1975)

300 AREA WASTE ACID TREATMENT SYSTEM
313 BUILDING
EFFLUENT COLLECTION TANKS

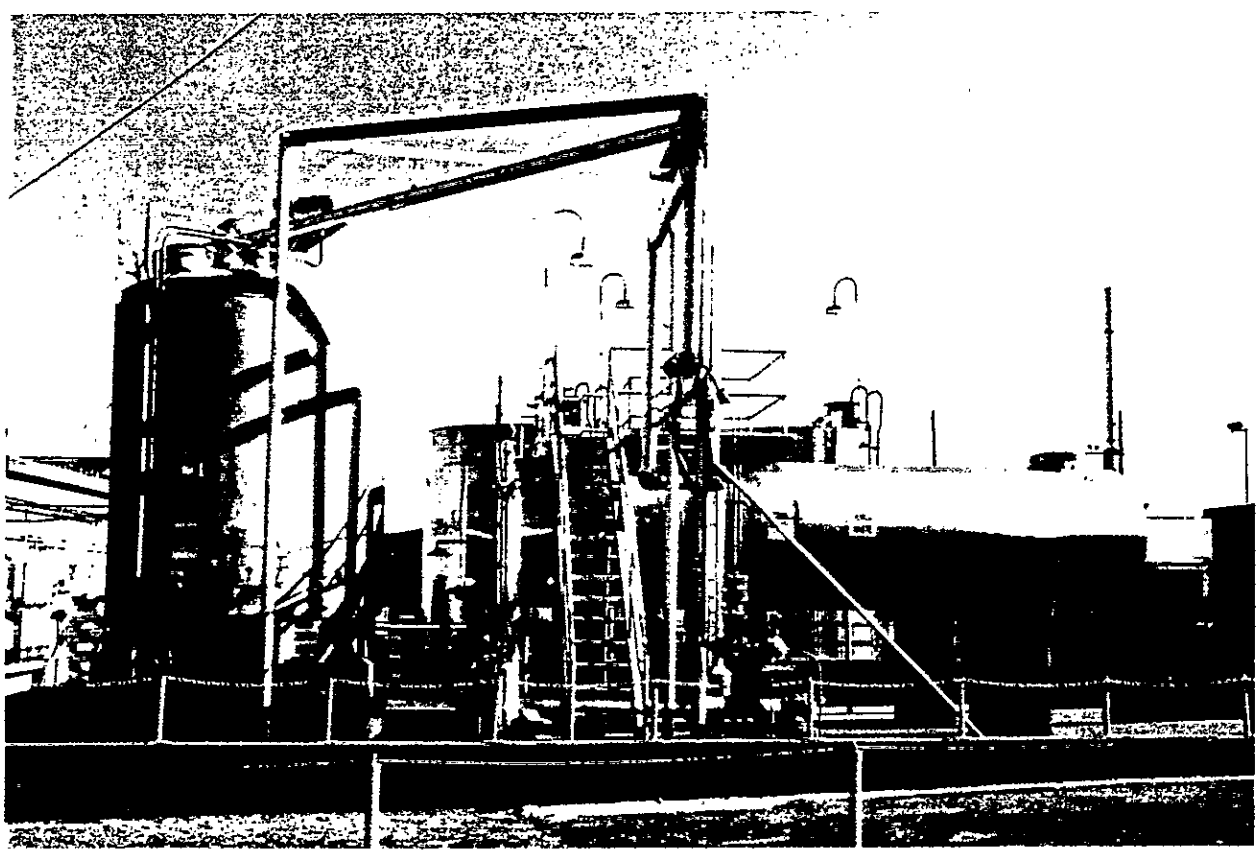


TANKS 9 AND 10

46°22'14"
119°16'40"

9022759-7CN
(PHOTO TAKEN 1990)

300 AREA WASTE ACID TREATMENT SYSTEM
311 TANK FARM

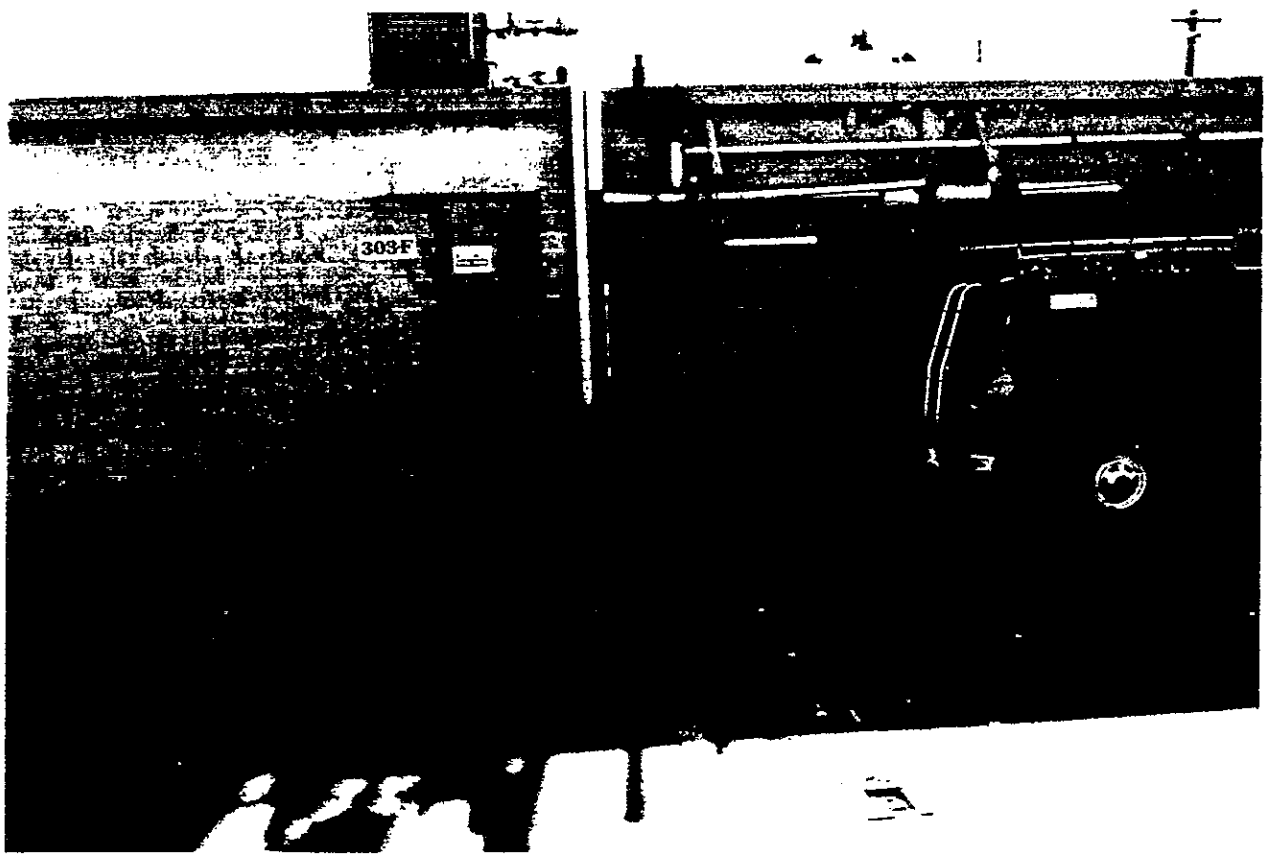


TANKS 40 AND 50

46°12′14"
119°16′38"

89050353-9CN
(PHOTO TAKEN 1989)

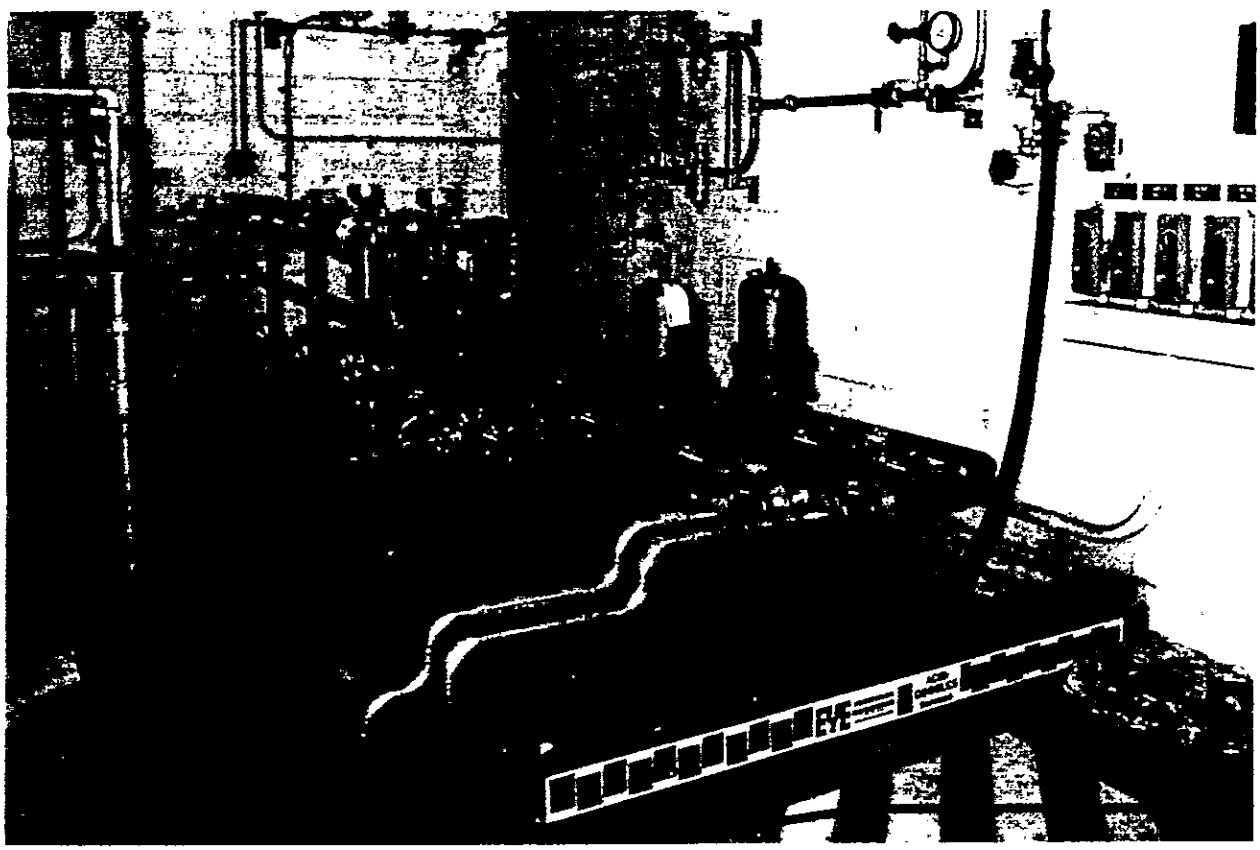
300 AREA WASTE ACID TREATMENT SYSTEM 303-F BUILDING



46°22'14"
119°16'38"

89050353-8CN
(PHOTO TAKEN 1989)

300 AREA WASTE ACID TREATMENT SYSTEM 303-F BUILDING



AUXILIARY EQUIPMENT (PUMPS, FILTERS AND SAMPLE PORTS)

46°22'14"
119°16'38"

89050353-7CN
(PHOTO TAKEN 1989)

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

FORM 3

DANGEROUS WASTE PERMIT APPLICATION

I. EPA/STATE I.D. NUMBER: W A 7 8 9 0 0 0 8 9 6 7

FOR OFFICIAL USE ONLY

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MO. U DAY L YR. 7 2 — FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the dates in the left)

☐ 2. NEW FACILITY (Complete item below.) — MO. DAY YR. — FOR NEW FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR IS EXPECTED TO BEGIN

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☐ 2. FACILITY HAS A FINAL PERMIT

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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	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
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

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
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

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

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. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S 0 2	600	G		5				
X-2	T 0 3	20	E		6				
1	S 0 1	11,000	G		7				
2					8				
3					9				
4					10				

CONTINUE ON REVERSE

2. Continued from the front

III. PROCESSES (continued)

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

S01

The 303-K Storage Facility is used for the storage of mixed wastes in Department of Transportation-specification drums. Both liquid and solid wastes are stored in the 303-K Storage Facility. The liquid wastes are stored on a 610 square foot pad within the building. The building provides secondary containment for the contents of the containers. The solid wastes are stored outside the building on a 4590 square foot asphalt, concrete, and gravel pad. The storage area is surrounded by a chain link fence. Approximately 200, 55-gallon containers (or more containers if smaller-sized) can be stored at the 303-K Storage Facility.

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 right justified)	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 2	900	P	T 0 3	D 8 0			
X-2	D 0 0 2	200	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

CONTINUE ON PAGE 3

Continued from page 2

NOTE: Photocopy this page before completing if you have more than 24 wastes to list.

ID NUMBER (enter from page 1): WA7890003967

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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	F001	15.000	P	S01	Container Storage
2	WC01				
3	WP01				
4	WT01				
5	D001				
6	F003				
7	WT02				
8	D002				
9	D006				Included With Above
10	WT02	40.000	P	S01	Container Storage
11	D007				Included With Above
12	WT01	40.000	P	S01	Container Storage
13	D001				
14	D005				
15	D006				Included With Above
16	D002	1.700	P	S01	Container Storage
17	D001	5.100	P	S01	Container Storage
18	D008	5.500	P	S01	Container Storage
19					
20					
21					
22					
23					
24					
25					
26					

Continued from page 2

NOTE Photocopy this page before completing if you have more than 25 wastes to list

I.D. NUMBER (enter from page 1): WA7890008967

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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	WT02	300,000	P	S01	Container Storage
2	D001				
3	D004				
4	D005				
5	D006				
6	D007				
7	D009				
8	D011				Included With Above
9	D002	1,500	P	S01	Container Storage
10	D007				Included With Above
11	D002	60	P	S01	Container Storage
12	D004				
13	D007				
14	D011				Included With Above
15	WP02	200	P	S01	Container Storage
16					
17					
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

SEE ATTACHMENT

V. FACILITY 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

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 attached drawings and photos

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

VIII. FACILITY OWNER

[X] 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. STATE	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)*	SIGNATURE	DATE SIGNED
Michael J. Lawrence Manager, Richland Operations United States Department of Energy	Michael J. Lawrence	6-21-90

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)*	SIGNATURE	DATE SIGNED
SEE ATTACHMENT		

CONTINUE ON PAGE 5

Section IV.E. Description of Dangerous Wastes

The 303-K Storage Facility is used for the storage of mixed wastes in Department of Transportation-specification drums. These wastes consist of the following;

1. Approximately 15,000 pounds per year of spent degreasing solvents (F001, WC01, WP01, and WT01) and occasionally mixed with ethyl acetate (D001, F003, and WT02). Waste solvents were sometimes acidic and are corrosive (D002) and have contained EP Toxic cadmium (D006).

2. Approximately 80,000 pounds per year of heat treat salts contaminated with naturally occurring radioactive potassium-40. The heat treat salts were generated from both beta bath (40,000 pounds per year) and quench bath (40,000 pounds per year). The beta bath salts consisted of potassium chloride and sodium chloride which are toxic dangerous waste (WT02) and contained EP Toxic chromium (D007). The quench bath salts consisted of potassium nitrate, sodium nitrate, sodium nitrite, potassium chloride, and sodium chloride. The quench bath salts are toxic extremely hazardous wastes (WT01), ignitable (D001) due to the solid nitrates and nitrites, which are oxidizers, and contained EP Toxic barium (D005) and cadmium (D006).

3. Approximately 1,700 pounds of copper fluorozirconate acid crystals from the bottom of the waste acid tanks in the 334-A Building, which are corrosive (D002).

4. Approximately 5,100 pounds per year of Zircaloy-2 and beryllium/Zircaloy-2 chips and fines before and after concreting the waste in the 304 Building. This material is designated ignitable (D001) due to its pyrophoric properties.

5. Approximately 5,500 pounds per year of EP Toxic metallic lead (D008).

6. Approximately 300,000 pounds per year of centrifuge and filter press sludge designated as a dangerous waste (WT02) by the mixture rule and an oxidizer (D001) due to solid nitrates. The wastes can also contain the EP Toxic ions introduced into the 300 Area Waste Acid Treatment System; arsenic (D004), barium (D005), cadmium (D006), chromium (D007), mercury (D009), and silver (D011).

7. Approximately 1,500 pounds per year of waste acid is absorbed by sedimentary opal clay and is designated corrosive (D002). This waste also contains EP Toxic chromium (D007).

Section IV.E. Description of Dangerous Wastes - continued

8. Approximately 60 pounds per year of waste acids contaminated with oil are designated as corrosive (D002) and contains EP Toxic arsenic (D004), chromium (D007), and silver (D011).

9. Approximately 200 pounds per year of waste hydraulic oil. This waste contains halogenated hydrocarbons which is designated as a dangerous waste (WP02).

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.

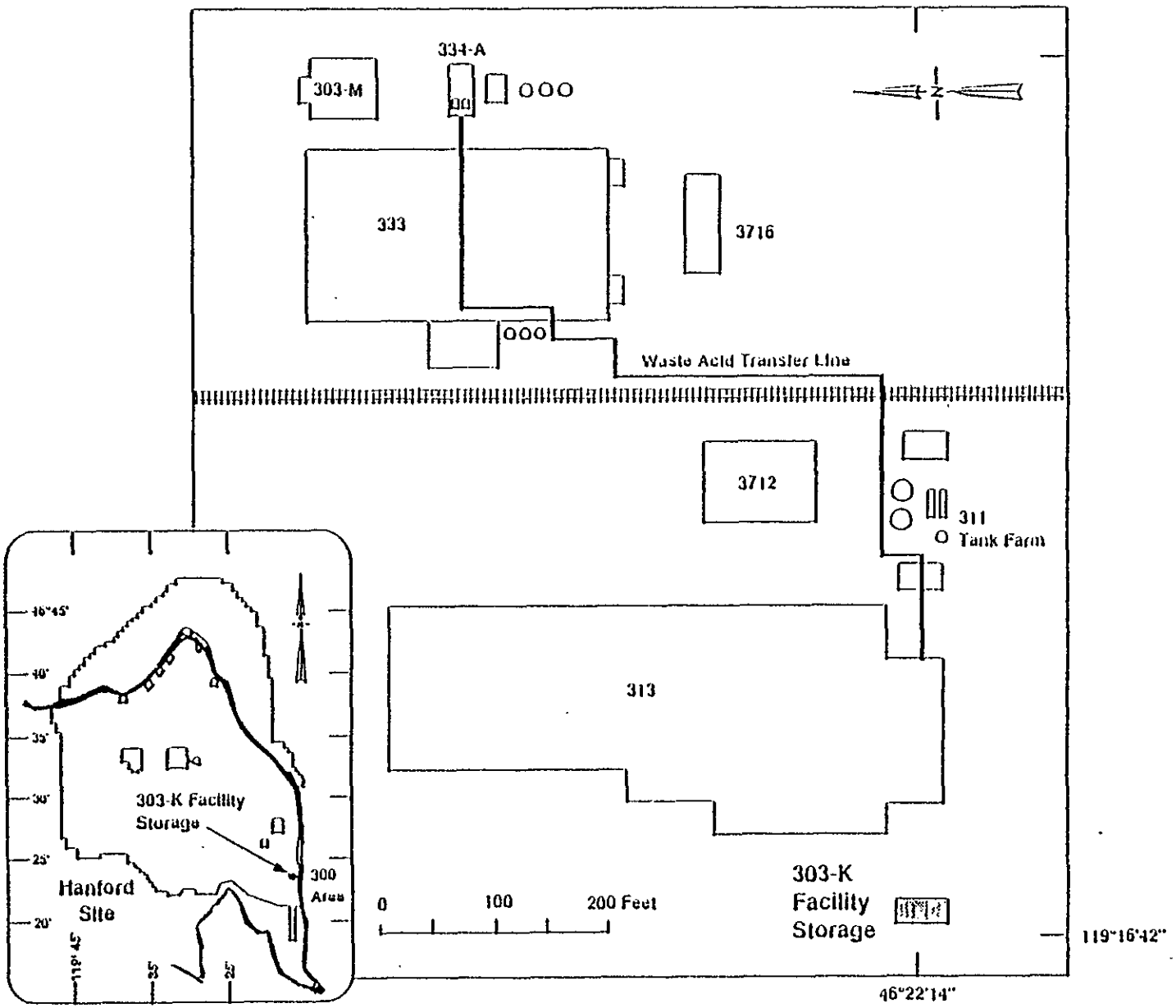
Co-operator
John E. Nolan, President
Westinghouse Hanford Company

Date 4/17/90

Owner/Operator
Michael J. Lawrence, Manager
U.S. Department of Energy
Richland Operations Office

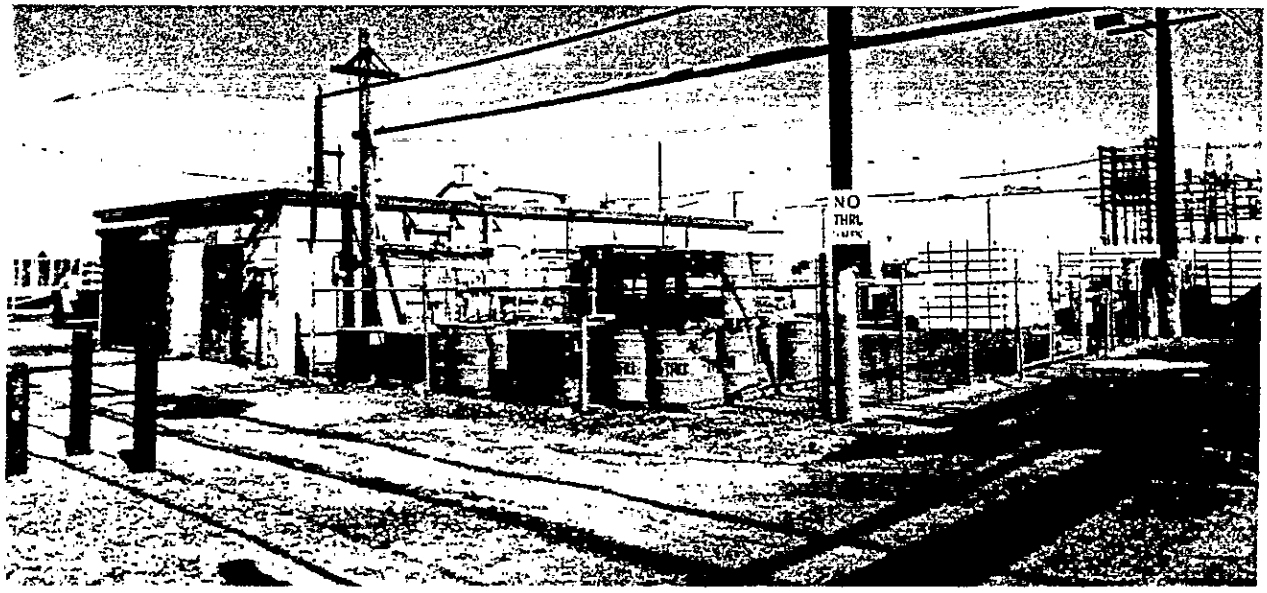
Date 6/21/90

303-K Storage Facility Site Plan



79004016 I

303-K STORAGE FACILITY



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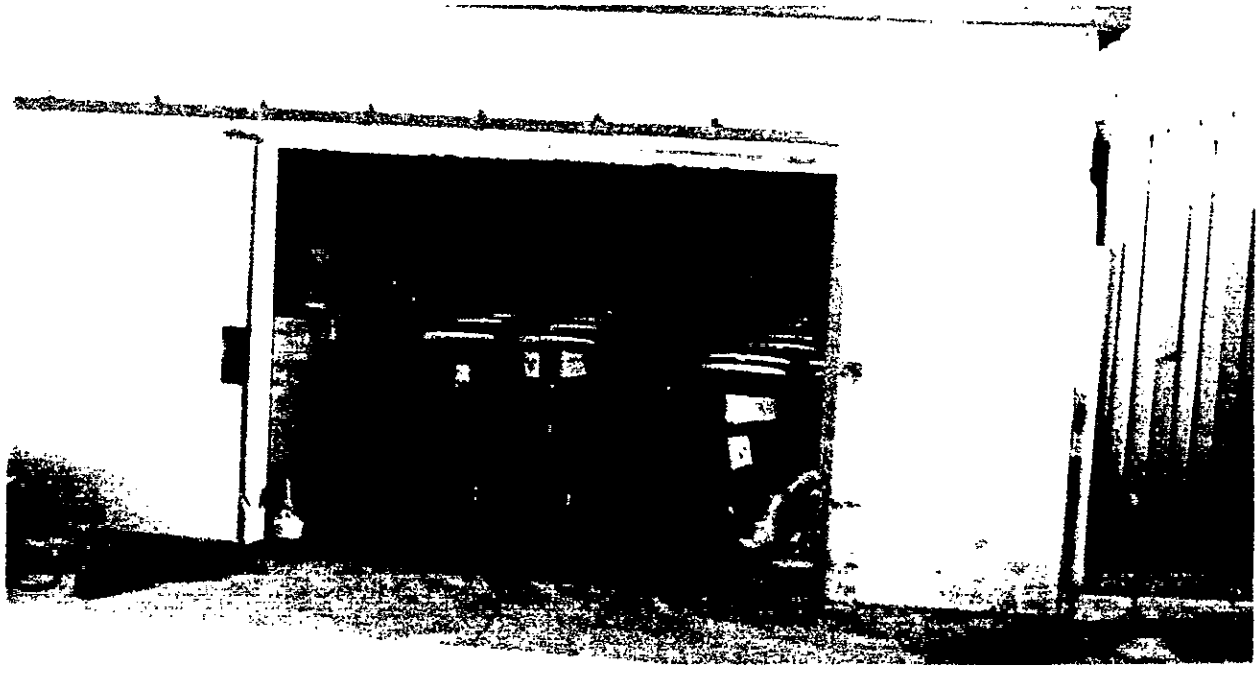

46°22'14"
119°16'42"

8704479-11CN
(PHOTO TAKEN 1987)

Please print or type in the unshaded areas only
(Initial lines are provided for the logo [illegible])

FORM 3

DANGEROUS WASTE PERMIT APPLICATION

I. EPA/STATE I.D. NUMBER: W A 7 3 9 0 0 0 3 9 5

FOR OFFICIAL USE ONLY

APPLICATION RECEIVED	DATE RECEIVED (Mo. Day Yr.)	COMMENTS

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)

☐ 1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)

☐ 2. NEW FACILITY (Complete item below.)

FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (see the dates in the left): Mo. 0 9 Day 1 Yr. 8 5

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

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

☒ 1. FACILITY HAS AN INTERIM STATUS PERMIT

☐ 2. FACILITY HAS A FINAL PERMIT

III. PROCESSES — CODES AND DESIGN 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	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D80	GALLONS OR LITERS
LANDFILL	D81	ACRE-FEET (the volume that would cover the entire fill 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

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
OTHER (Use for physical, chemical, biological or thermal 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

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

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. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S02	600	G		5				
X-2	T03	20	E		6				
1	S01	28,635	G		7				
2					8				
3					9				
4					10				

Continued from the front

III. PROCESSES (continued)

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

S01
The 616 Nonradioactive Dangerous Waste Storage Facility (616 NROWSF) is located between the 200 East and 200 West Areas on the Hanford Site. The 616 NROWSF provides container storage for nonradioactive dangerous waste generated in the research and development laboratories, process operations, construction, waste site cleanup/remediation, environmental monitoring, maintenance, and transportation functions throughout the Hanford Site. Waste is only stored at the 616 NROWSF until arrangements can be made to ship the waste to a permitted offsite treatment, storage, and/or disposal facility. The 616 NROWSF is capable of storing up to 28,635 gallons of nonradioactive dangerous waste in U.S. Department of Transportation-approved containers.

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 operations. 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.	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE	D. PROCESSES 1. PROCESS CODES	D. PROCESSES 2. PROCESS DESCRIPTION
X-1	K 0 3 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	200	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

CONTINUE ON PAGE 3

Continued from page 2.
NOTE: Photocopy this page before completing if you have more than 25 wastes to list.

I.D. NUMBER (enter from page 1): WA7890008937

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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	0001	65,000	K	S01	Storage
2	0002	50,000			
3	0003	5,000			
4	0004				
5	0005	↓			
6	0006	20,000			
7	0007	35,000			
8	0008	30,000			
9	0009	17,000			
10	0010	5,000			
11	0011				
12	0012				
13	0013				
14	0014				
15	0015				
16	0016				
17	0017				
18	0018				
19	0019				
20	0020				
21	0021				
22	0022				
23	0023				
24	0024				
25	0025				
26	0026	↓	↓	↓	↓

Continued from page 3.

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

I.D. NUMBER (enter from page 1): WA7890008987

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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	0027	5,000	K	S01	Storage
2	0023				
3	0029				
4	0030				
5	0031				
6	0032				
7	0033				
8	0034				
9	0035				
10	0036				
11	0037				
12	0038				
13	0039				
14	0040				
15	0041				
16	0042				
17	0043	↓			
18	WC01	22,000			
19	WC02	30,000			
20	WP01	24,000			
21	WP02	5,000			
22	WP03	4,000			
23	WT01	80,000			
24	WT02	114,000	↓	↓	↓
25					
26					

(Continued from page 2)

NOTE: Number this page before completing if you have more than 26 wastes in list

I.D. NUMBER (enter from page 1): WA7890003357

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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	F001	4,000	K	S01	Storage
2	F002	13,000			
3	F003	25,000			
4	F004	3,000			
5	F005	25,000			
6	F006	500			
7	F007				
8	F008				
9	F009				
10	F010				
11	F011				
12	F012				
13	F019				
14	F020				
15	F021				
16	F022				
17	F023				
18	F024				
19	F026	↓			
20	F027	800			
21	F028	500			
22	W001	2,500	↓	↓	↓
23					
24					
25					
26					

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

D. NUMBER (enter from page 1)
WA789000896 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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (If a code is not entered in D(1))
1	P001	500	K	S01	Storage
2	P002				
3	P003				
4	P004				
5	P005				
6	P006				
7	P007				
8	P008				
9	P009				
10	P010				
11	P011				
12	P012				
13	P013				
14	P014				
15	P015				
16	P016				
17	P017				
18	P018				
19	P020				
20	P021				
21	P022				
22	P023				
23	P024				
24	P025				
25	P026				
26	P027				

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

I.D. NUMBER (enter from page 1): WA 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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	P028	500	K	S01	Storage
2	P029				
3	P030				
4	P031				
5	P033				
6	P034				
7	P035				
8	P036				
9	P037				
10	P038				
11	P039				
12	P040				
13	P041				
14	P042				
15	P043				
16	P044				
17	P045				
18	P046				
19	P047				
20	P048				
21	P049				
22	P050				
23	P051				
24	P052				
25	P054				
26	P056				

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

I.D. NUMBER (enter from page 1)

WA7890008967

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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	P057	500	K	S01	Storage
2	P058				
3	P059				
4	P060				
5	P062				
6	P063				
7	P064				
8	P065				
9	P066				
10	P067				
11	P068				
12	P069				
13	P070				
14	P071				
15	P072				
16	P073				
17	P074				
18	P075				
19	P076				
20	P077				
21	P078				
22	P079				
23	P081				
24	P082				
25	P084				
26	P085				

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

I.D. NUMBER (enter from page 1): WA 7 8 9 0 0 0 8 9 6 7

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

LINE NO.	A. DANGEROUS WASTE NO. (enter codes)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	P 0 8 7	500	K	S 0 1	Storage
2	P 0 8 8				
3	P 0 8 9				
4	P 0 9 2				
5	P 0 9 3				
6	P 0 9 4				
7	P 0 9 5				
8	P 0 9 6				
9	P 0 9 7				
10	P 0 9 8				
11	P 0 9 9				
12	P 1 0 1				
13	P 1 0 2				
14	P 1 0 3				
15	P 1 0 4				
16	P 1 0 5				
17	P 1 0 6				
18	P 1 0 7				
19	P 1 0 8				
20	P 1 0 9				
21	P 1 1 0				
22	P 1 1 1				
23	P 1 1 2				
24	P 1 1 3				
25	P 1 1 4				
26	P 1 1 5				

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

I.D. NUMBER (enter from page 1)

WA 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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (If a code is not entered in D(1))
1	P116	500	K	S01	Storage
2	P118				
3	P119				
4	P120				
5	P121				
6	P122				
7	P123				
8					
9					
10					
11					
12					
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24					
25					
26					

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

I.D. NUMBER (enter from page 1)

WA7890003967

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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (If a code is not entered in D(1))
1	U001	500	K	S01	Storage
2	U002	1,000			
3	U003	↓			
4	U004	500			
5	U005				
6	U006				
7	U007				
8	U008				
9	U009				
10	U010				
11	U011				
12	U012				
13	U014				
14	U015				
15	U016				
16	U017				
17	U018				
18	U019				
19	U020				
20	U021				
21	U022				
22	U023				
23	U024				
24	U025				
25	U026				
26	U027	↓	↓	↓	↓

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

I.D. NUMBER (enter from page 1)

WA 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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	U 0 2 8	500	K	S 0 1	Storage
2	U 0 2 9				
3	U 0 3 0				
4	U 0 3 1	↓			
5	U 0 3 2	1,000			
6	U 0 3 3	500			
7	U 0 3 4				
8	U 0 3 5				
9	U 0 3 6				
10	U 0 3 7				
11	U 0 3 8				
12	U 0 3 9				
13	U 0 4 0				
14	U 0 4 1				
15	U 0 4 2				
16	U 0 4 3	↓			
17	U 0 4 4	1,000			
18	U 0 4 5	500			
19	U 0 4 6				
20	U 0 4 7				
21	U 0 4 8				
22	U 0 4 9				
23	U 0 5 0	↓			
24	U 0 5 1	2,000			
25	U 0 5 2	500			
26	U 0 5 3	↓	↓	↓	↓

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

I.D. NUMBER (enter from page 1)
WA7890008967

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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (If a code is not entered in D(1))
1	U055	500	K	S01	Storage
2	U056				
3	U057				
4	U058				
5	U059				
6	U060				
7	U061				
8	U062				
9	U063				
10	U064				
11	U066				
12	U067				
13	U068				
14	U069				
15	U070				
16	U071				
17	U072				
18	U073				
19	U074				
20	U075				
21	U076				
22	U077				
23	U078				
24	U079				
25	U080				
26	U081				

Continued from page 2.
NOTE: Photocopy this page before completing if you have more than 25 wastes to list.

I.D. NUMBER (enter from page 1)
WA 7 8 9 0 0 1 0 8 9 6 7

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

LINE NO.	A. DANGEROUS WASTE NO. (enter codes)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (If a code is not entered in D(1))
1	U082	500	K	S01	Storage
2	U083				
3	U084				
4	U085				
5	U086				
6	U087				
7	U088				
8	U089				
9	U090				
10	U091				
11	U092				
12	U093				
13	U094				
14	U095				
15	U096				
16	U097				
17	U098				
18	U099				
19	U101				
20	U102				
21	U103				
22	U105				
23	U106				
24	U107				
25	U108				
26	U110				

Continued from page 2.
NOTE: Photocopy this page before completing if you have more than 25 wastes to list.

I.D. NUMBER (enter from page 1): WA7890008987

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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (If a code is not entered in D(1))
1	U111	500	K	S01	Storage
2	U112				
3	U113				
4	U115				
5	U116				
6	U117				
7	U118				
8	U119				
9	U120				
10	U121				
11	U122				
12	U123				
13	U124				
14	U125				
15	U126				
16	U127				
17	U128				
18	U129				
19	U130				
20	U131				
21	U132				
22	U133	2,000			
23	U134	1,000			
24	U135	500			
25	U136				
26	U137				

Continued from page 2.
NOTE: Photocopy this page before completing if you have more than 25 wastes to list.

I.D. NUMBER (enter from page 1): WA789000897

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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (If a code is not entered in D(1))
1	U138	500	K	S01	Storage
2	U139				
3	U140				
4	U141				
5	U142				
6	U143				
7	U144	↓			
8	U145	1,000			
9	U146	500			
10	U147				
11	U148				
12	U149				
13	U150	↓			
14	U151	3,000			
15	U152	500			
16	U153	↓			
17	U154	1,000			
18	U155	500			
19	U156				
20	U157				
21	U158				
22	U159				
23	U160				
24	U161				
25	U162				
26	U163	↓	↓	↓	↓

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

I.D. NUMBER (enter 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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	U164	500	K	S01	Storage
2	U165				
3	U166				
4	U167				
5	U168				
6	U169				
7	U170				
8	U171				
9	U172				
10	U173				
11	U174				
12	U175				
13	U176				
14	U177				
15	U178				
16	U179				
17	U180				
18	U181				
19	U182				
20	U183				
21	U184				
22	U185				
23	U186				
24	U187				
25	U188				
26	U189				

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

I.D. NUMBER (enter from page 1)
WA7890008916 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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	U190	500	K	S01	Storage
2	U191				
3	U192				
4	U193				
5	U194				
6	U196				
7	U197				
8	U200				
9	U201				
10	U202				
11	U203				
12	U204				
13	U205				
14	U206				
15	U208				
16	U209				
17	U210				
18	U211				
19	U213				
20	U214				
21	U215				
22	U216				
23	U217				
24	U218				
25	U219				
26	U220				

Continued from page 2.

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

I.D. NUMBER (enter from page 1): WA7890008967

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. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (If a code is not entered in D(1))
1	U221	500	K	S01	Storage
2	U222	↓			
3	U223	1,500			
4	U225	↓			
5	U226	3,000			
6	U227	500			
7	U228	1,000			
8	U231	500			
9	U234	↓			
10	U235	1,000			
11	U236				
12	U237	↓			
13	U238	500			
14	U239	1,000			
15	U240	5,000			
16	U242	500			
17	U243	↓			
18	U244	1,000			
19	U245	500			
20	U246				
21	U247				
22	U328				
23	U353				
24	U359	↓	↓	↓	↓
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.

The 616 NROWSF is used for the storage of nonradioactive dangerous waste generated on the Hanford Site. This waste consist of listed waste, waste from non-specific sources, characteristic waste, and state-only waste.

V. FACILITY 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

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 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)	SIGNATURE	DATE SIGNED
Michael J. Lawrence Manager, Richland Operations United States Department of Energy		

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)	SIGNATURE	DATE SIGNED
SEE ATTACHMENT		

CONTINUE ON PAGE 5

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.

Roger Nichols

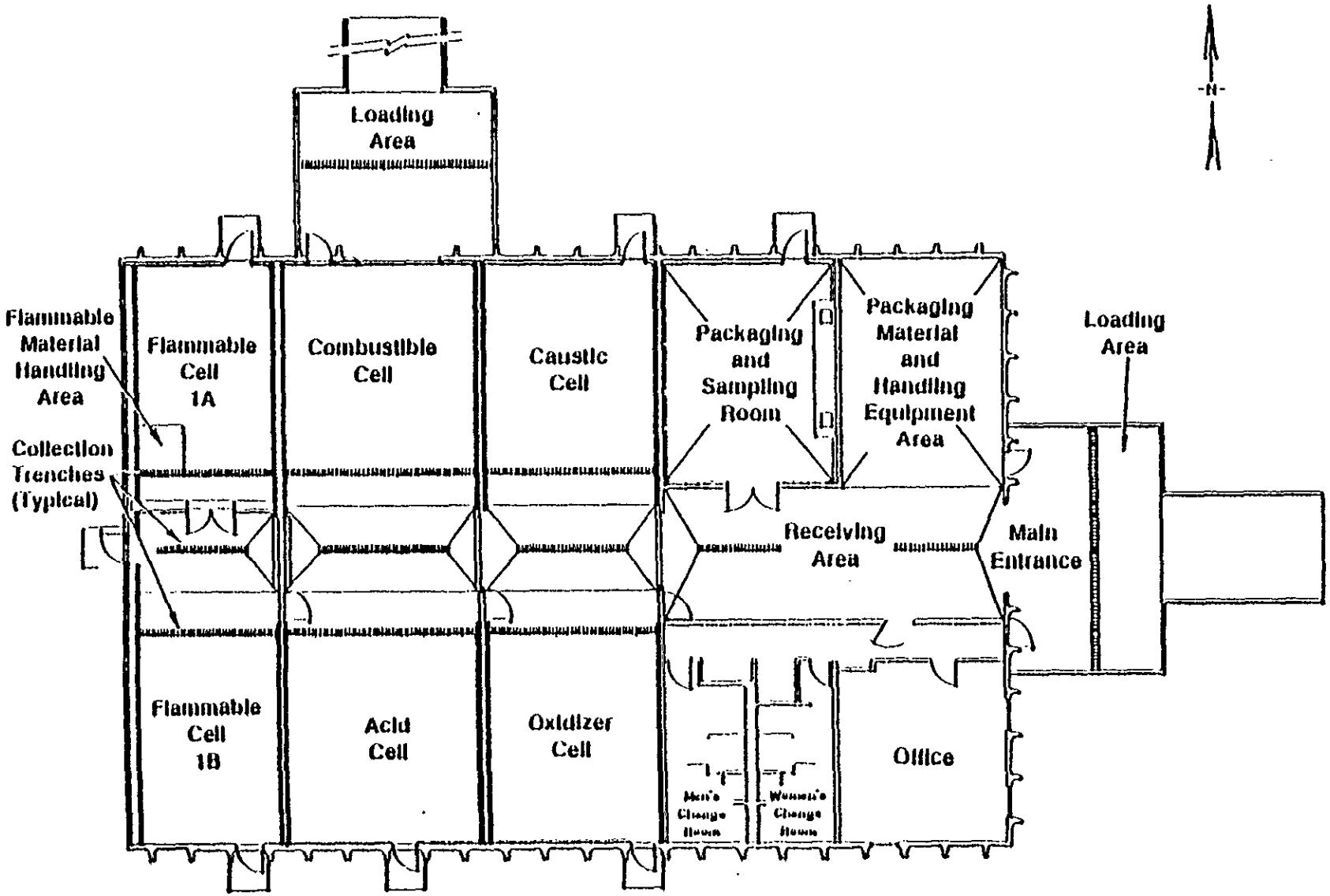
Co-operator
Roger C. Nichols, President
Westinghouse Hanford Company

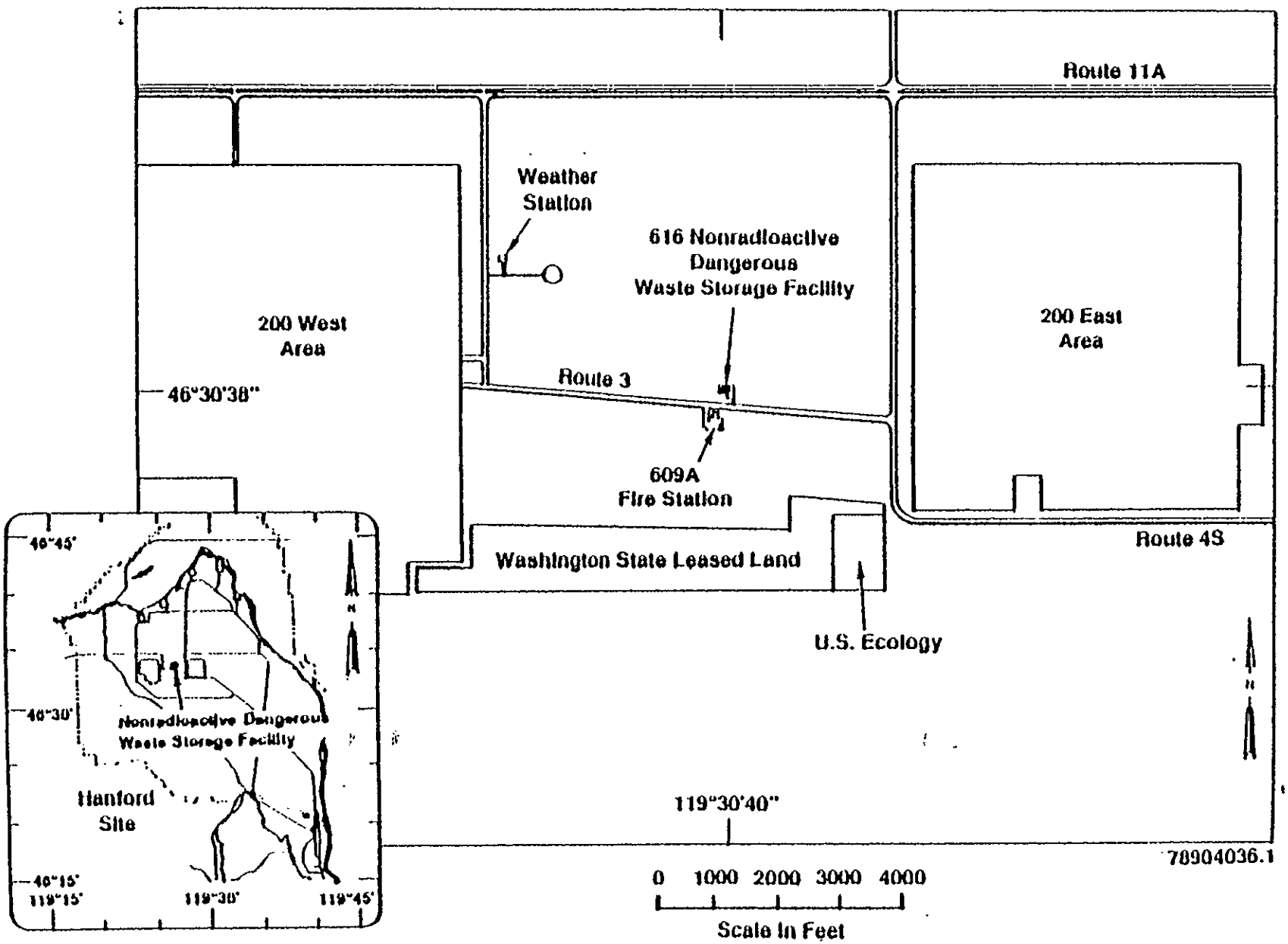
6/13/90
Date

Michael J. Lawrence

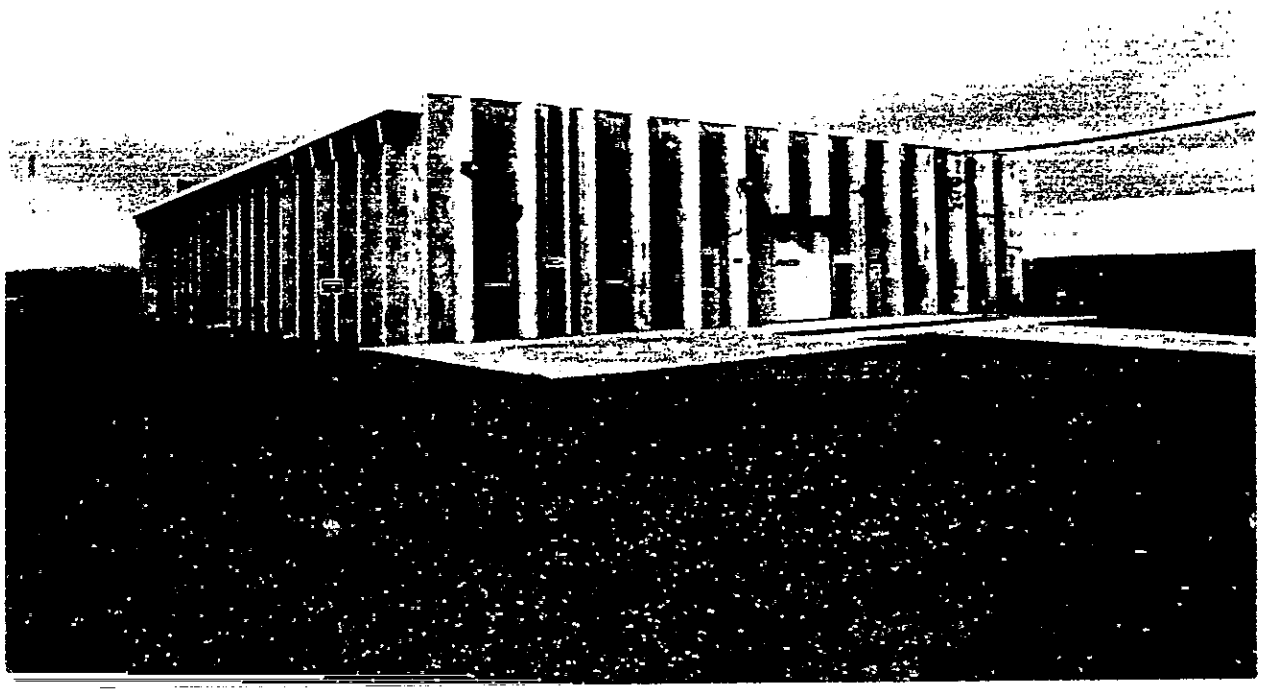
Owner/Operator
Michael J. Lawrence, Manager
U.S. Department of Energy
Richland Operations Office

6/21/90
Date


Loading Area
Flammable Material Handling Area
Collection Trenches (Typical)
Flammable Cell 1A
Combustible Cell
Caustic Cell
Packaging and Sampling Room
Packaging Material and Handling Equipment Area
Loading Area
Receiving Area
Main Entrance
Flammable Cell 1B
Acid Cell
Oxidizer Cell
Office
Men's Change Room
Women's Change Room
N


Route 11A
Weather Station
616 Nonradioactive Dangerous Waste Storage Facility
200 West Area
200 East Area
Route 3
46°30'38"
609A Fire Station
Route 4S
Washington State Leased Land
U.S. Ecology
119°30'40"
0 1000 2000 3000 4000
Scale in Feet
78904036.1
46°45'
46°30'
46°15'
119°15'
119°30'
119°45'
Nonradioactive Dangerous Waste Storage Facility
Hanford Site

616 NONRADIOACTIVE DANGEROUS WASTE STORAGE FACILITY



'09"
'35"

8700742-42CN
(PHOTO TAKEN 1987)