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Hanford Facility Dangerous Waste Part A Permit Application

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HANFORD FACILITY DANGEROUS WASTE PART A PERMIT APPLICATION

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d = Dangerous waste treatment, storage, and/or disposal unit.
m = Mixed waste treatment, storage, and/or disposal unit.
a = Active treatment, storage, and/or disposal unit.
c = Treatment, storage, and/or disposal unit closing under interim status.
♦ = Revised this issue.

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HANFORD FACILITY DANGEROUS WASTE PART A PERMIT APPLICATION

1.0 INTRODUCTION

The Hanford Site is owned by the U.S. Government and operated by the U.S. Department of Energy, Richland Operations Office. The Hanford Site manages and produces dangerous waste and mixed waste (containing both radioactive and dangerous components). The dangerous waste is regulated in accordance with the *Resource Conservation and Recovery Act of 1976* and the *State of Washington Hazardous Waste Management Act of 1976* [as administered through the Washington State Department of Ecology *Dangerous Waste Regulations*, Washington Administrative Code 173-303]. The radioactive component of mixed waste is interpreted by the U.S. Department of Energy to be regulated under the *Atomic Energy Act of 1954*; the nonradioactive dangerous component of mixed waste is interpreted to be regulated under the *Resource Conservation and Recovery Act* and Washington Administrative Code 173-303.

For purposes of the *Resource Conservation and Recovery Act* and the Washington State Department of Ecology *Dangerous Waste Regulations*, the Hanford Site is considered to be a single facility. The single dangerous waste permit identification 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 WA7890008967. This identification number encompasses over 60 treatment, storage, and/or disposal units within the Hanford Site, hereinafter referred to as the Hanford Facility when cited in the context of the *Resource Conservation and Recovery Act* and the Washington State Department of Ecology *Dangerous Waste Regulations*. All waste management activities carried out under the assigned identification number are considered to be 'onsite'.

The current *Hanford Facility Dangerous Waste Part A Permit Application* consists of two "Dangerous Waste Permit General Information, Form 1s" and over 60 "Dangerous Waste Permit Application, Form 3s." Two Form 1s have been submitted because there are two contractors that are co-operators of treatment, storage, and/or disposal units with the U.S. Department of Energy, Richland Operations Office: the Westinghouse Hanford Company and Pacific Northwest Laboratory. A Form 3 has been submitted for each treatment, storage, and/or disposal unit or group of units located on the Hanford Facility.

This document consolidates into a single controlled document the current revisions of all Hanford Facility Part A Form 1s and Form 3s previously submitted to the Washington State Department of Ecology and the U.S. Environmental Protection Agency. This document has been designed to facilitate the insertion of revised material. The document will be revised 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 "Permitting Status for Dangerous Waste Treatment, Storage, and/or Disposal Units" that provides a brief history of the Form 3s. The table shows the initial submittal date of the Form 3, the latest submittal date, and the current revision number. This table also identifies if, and when, a Part B dangerous waste permit application, closure plan, or postclosure permit application was submitted to the Washington State Department of Ecology.

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

Section 4.0 is divided into six sections containing Form 3s for the treatment, storage, and/or disposal units in the 100, 200, 300, 400, 600, and 1100 Areas of the Hanford Facility, respectively.

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

2.0 PERMITTING STATUS FOR DANGEROUS WASTE TREATMENT, STORAGE, AND/OR DISPOSAL UNITS

This section contains a permitting status table and an explanation of the contents of the table.

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Permitting Status Table.

UNIT	ORG	AREA	PERMIT	TYPE	INITIAL	LATEST	REV	PART B	CLOSURE	REV	COMMENT	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	10/01/90	0		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		06/19/91	3		M
1301-N LIQUID WASTE DISPOSAL FACILITY	WHC	100	A/C	D	08/01/86	02/02/88	3		04/01/87	0		M
1325-N LIQUID WASTE DISPOSAL FACILITY	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	02/26/93	3		04/01/87	0		H
221-T CONTAINMENT SYSTEMS TEST FACILITY	WHC	200W	A/C	T	11/01/85	11/16/87	2	11/01/85		0	F	H
200 WEST AREA ASH PIT DEMOLITION SITE	WHC	200W	A/C	T	11/01/85	11/18/92	3	11/01/85	11/24/92	0	A	H
218-E-8 BORROW PIT DEMOLITION SITE	WHC	200E	A/C	T	11/01/85	11/18/92	3	11/01/85	11/24/92	0	A	H
242-A EVAPORATOR	WHC	200E	A/B	T	09/01/87	12/20/90	4	04/13/93				M
GROUT TREATMENT FACILITY	WHC	200E	A/B	TSD	09/01/87	07/22/92	4	07/24/92		2		M
T-PLANT TREATMENT TANK	WHC	200W	A/B	T	12/01/87	12/03/87	0					M
241-Z TREATMENT AND STORAGE TANKS	WHC	200W	A/B	T	12/01/87	06/24/92	3					M
B PLANT	WHC	200E	A/B	TS	12/01/87	12/22/89	1					M
222-S LABORATORY COMPLEX	WHC	200W	A/B	TS	12/01/87	04/13/93	2	12/21/91		0		M
204-AR WASTE UNLOADING STATION	WHC	200E	A/B	T	12/01/87	02/26/93	2					M
PUREX PLANT	WHC	200E	A/C	TS	12/01/87	11/24/92	3					M
HANFORD WASTE VITRIFICATION PLANT	WHC	200E	A/B	TS	05/01/88	09/30/91	4	10/01/91		2		M
242-A EVAPORATOR/PUREX PLANT CONDENSATE TREATMENT FACILITY	WHC	200E	A/B	T	06/26/91	06/26/91	0					M
2727-S STORAGE FACILITY	WHC	200W	A/C	S	11/01/85	11/16/87	2		02/05/92	3		H
DOUBLE-SHELL TANK SYSTEM	WHC	200EW	A/B	TS	09/01/87	05/26/93	5	06/28/91		0		M
HEXONE STORAGE AND TREATMENT FACILITY	WHC	200W	A/C	TS	12/01/87	11/18/92	2		11/24/92	0		M

Permitting Status Table.

UNIT	ORG	AREA	PERMIT	TYPE	INITIAL	LATEST	REV	PART B	CLOSURE	REV	COMMENT	CLASS
2727-WA SRE SODIUM STORAGE BUILDING	WHC	200W	A/C	S	12/01/87	12/03/87	0				F	M
PUREX TUNNELS 1 AND 2	WHC	200E	A/B	S	12/01/87	09/18/90	1	12/09/92		1		M
224-T TRANSURANIC WASTE STORAGE AND ASSAY FACILITY	WHC	200W	A/B	S	12/01/87	03/01/93	3	06/30/92		0		M
HANFORD CENTRAL WASTE COMPLEX--RADIOACTIVE MIXED WASTE STORAGE FACILITY*	WHC	200W	A/B	S	05/01/88	10/22/90	1	10/31/91		0		M
HANFORD CENTRAL WASTE COMPLEX--WASTE RECEIVING AND PROCESSING FACILITY*	WHC	200W	A/B	T/S	05/01/88	10/22/90	1	10/31/91		0		M
SINGLE-SHELL TANK SYSTEM	WHC	200W	A/C	S	02/01/88	04/13/93	2		09/30/89	Draft		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	06/26/91	1	06/28/91		0		M
241-CX TANK SYSTEM	WHC	200E	A/C	S	07/10/90	09/28/92	1					M
LOW-LEVEL BURIAL GROUNDS	WHC	200EW	A/B	D	11/01/85	08/16/90	6	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		04/03/91	1		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 SYSTEM	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					M
216-U-12 CRIB	WHC	200W	A/C	D	08/01/87	02/02/88	2					M
216-A-36B CRIB	WHC	200E	A/C	D	02/01/88	02/02/88	0		02/01/88	0		M
216-A-37-1 CRIB	WHC	200E	A/C	D	02/26/90	05/01/93	1					M
3718-F ALKALI METAL TREATMENT AND STORAGE AREA	WHC	300	A/C	TS	11/01/85	12/20/91	3	11/06/85	11/10/92	1		M
324 SODIUM REMOVAL PILOT PLANT	PNL	300	A/B	T	11/01/85	05/19/88	3	11/01/85		0	B	M

*Part A permit application covers the Radioactive Mixed Waste Storage Facility and the Waste Receiving and Processing Facility.

Permitting Status Table.

UNIT	ORG	AREA	PERMIT	TYPE	INITIAL	LATEST	REV	PART B	CLOSURE	REV	COMMENT	CLASS
304 CONCRETION FACILITY	WHC	300	A/C	TS	08/01/86	06/21/90	4		10/31/91	1		M
300 AREA SOLVENT EVAPORATOR	WHC	300	A/C	T	11/01/85	03/27/90	4		09/24/92	3B		M
300 AREA WASTE ACID TREATMENT FACILITY	WHC	300	A/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
325/3100 HAZARDOUS WASTE TREATMENT UNIT	PNL	300	A/B	T	05/01/88	06/24/92	1	06/24/92		0		M
BIOLOGICAL TREATMENT TEST UNITS	PNL	300	A/B	O	05/01/88	05/19/88	0					M
PHYSICAL & CHEMICAL TREATMENT FACILITIES	PNL	300	A/B	O	05/01/88	08/13/91	1					M
THERMAL TREATMENT TEST UNITS	PNL	300	A/B	O	05/01/88	05/19/88	0					M
311 TANKS (INCORPORATED INTO 300 AREA WASTE ACID TREATMENT SYSTEM, REV. 3)	WHC	300										
303-K STORAGE UNIT	WHC	300	A/C	S	08/01/87	06/21/90	3		11/13/91	1		M
305-B STORAGE UNIT	PNL	300	A/B	TS	05/01/88	12/20/90	1	01/31/90		0		M
332 STORAGE UNIT	PNL	300	A/B	S	05/01/88	05/19/88	0				B	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/C	S	09/01/87	05/31/91	2		06/29/91	0		M
HANFORD PATROL ACADEMY DEMOLITION SITES	WHC	600	A/C	T	11/01/85	11/18/92	3	11/01/85	11/24/92	0	A	H
616 NONRADIOACTIVE DANGEROUS WASTE STORAGE FACILITY	WHC	600	A/B	S	11/01/85	06/21/90	4	10/31/91		2		H
600 AREA PURGEWATER STORAGE AND TREATMENT FACILITY	WHC	600	A/B	TS	02/20/90	02/20/90	0					M
NONRADIOACTIVE DANGEROUS WASTE LANDFILL	WHC	600	A/C	D	11/01/85	08/23/90	3	11/06/85	09/30/90	0		H
SIMULATED HIGH-LEVEL WASTE TREATMENT AND STORAGE UNIT	PNL	1100	A/C	TS	05/01/88	05/19/88	0		09/29/89			M

Explanation of 'Permitting Status Table'.

UNIT — Name of treatment, storage, and/or disposal (TSD) 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 co-operate the TSD unit for the U.S. Department of Energy, Richland Operations Office:

WHC -- Westinghouse Hanford Company.

PNL -- Pacific Northwest Laboratory.

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

100 -- 100 Area, includes N Reactor

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

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

200EW -- Parts of a TSD 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

500 -- Unused designation

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

1100 -- 1100 Area, includes maintenance and shipping TSD units

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

A -- Part A

B -- Part B

C -- Closure plan

PC -- Postclosure plan.

TYPE — Waste unit 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.

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.

REV — Revision of Part B or closure plan.

COMMENTS

A Three former demolition sites 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 TSD unit contains mixed waste and dangerous waste.

H TSD unit contains no radioactive waste. All TSD units on this list contain nonradioactive dangerous waste.

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

RM 3

DANGEROUS WASTE PERMIT APPLICATION

1. 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. 0 1 | DAY 0 1 | YR. 7 7

FOR EXISTING FACILITIES, PROVIDE THE DATE *(mo., day, & yr.)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to 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 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	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET	A
LITERS	L	TONS PER HOUR	D	HECTARE-METER	F
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES	B
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES	Q
GALLONS PER DAY	U	LITERS PER HOUR	H		

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

LINE NUMBER	A. 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				
	T 0 4	45,000	U		7				
	D 8 4	19,600,000	G		8				
3					9				
4					10				

CONTINUE ON REVERSE

Continued from the front.

PROCESSES (continued)

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

T04, D84

The 100-D Ponds historically received corrosive dangerous waste from the regeneration of three ion exchange columns located in the Thermal Hydraulics Test Facility and the Mechanical Development Laboratory of the combined 185-D/189-D Building, and nonregulated process water generated from the 183-D Filter Water Plant (183-D), a sanitary water treatment facility. Treatment of the waste occurred by the successive discharge to the ponds of acidic waste and caustic waste (T04). This treatment served to neutralize the waste in the ponds. Any acidic or caustic waste that reached the soil was likely buffered by the calcareous constituents of the soil. Approximately 45,000 gallons (170,000 liters) per day were treated in the 100-D Ponds; a fraction of this was the corrosive dangerous waste. This unit has not received dangerous waste since January 1986. The 100-D Ponds currently receive 720,000 gallons (2,730,000 liters) of nonregulated process water twice a year when the 183-D Settling Basins are washed down, and 140,000 gallons (530,000 liters) monthly when the 183-D sandfilters are backwashed. The process design capacity for disposal reflects the maximum volume of waste/process water discharged to the 100-D Ponds annually before January 1986, rather than the physical capacity of the unit (D84).

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))
	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 *(entered from page 1)*

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	D002	163,600,000	P	T04	D84			Neutralization/Percolation
2								
3								
4								
5								
6								
7								
8								
9								
10								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
25								
26								

Continued from the front.

ESCRIPTION OF DANGEROUS WASTES (continued)

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

The 100-D Ponds historically received corrosive dangerous waste from the 185-D/189-D Building and nonregulated process water from the 183-D. The waste consisted of the acidic and caustic backwashes (D002) from the regeneration of ion exchange columns in the 185-D/189-D Building. The actual annual volume of corrosive waste discharged to the 100-D Ponds is not known, although approximately 19,600,000 gallons (74,200,000 liters) of waste/process water was discharged to the ponds before January 1986. The 100-D Ponds currently receive 3,120,000 gallons (11,800,000 liters) of nonregulated process water annually.

91547

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 the 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
John D. Wagoner, Manager U.S. Department of Energy and Field Office	John D. Wagoner	2/26/93

ERATOR CERTIFICATION

y 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 D. Wagoner — 2/26/93

Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
Richland Field Office

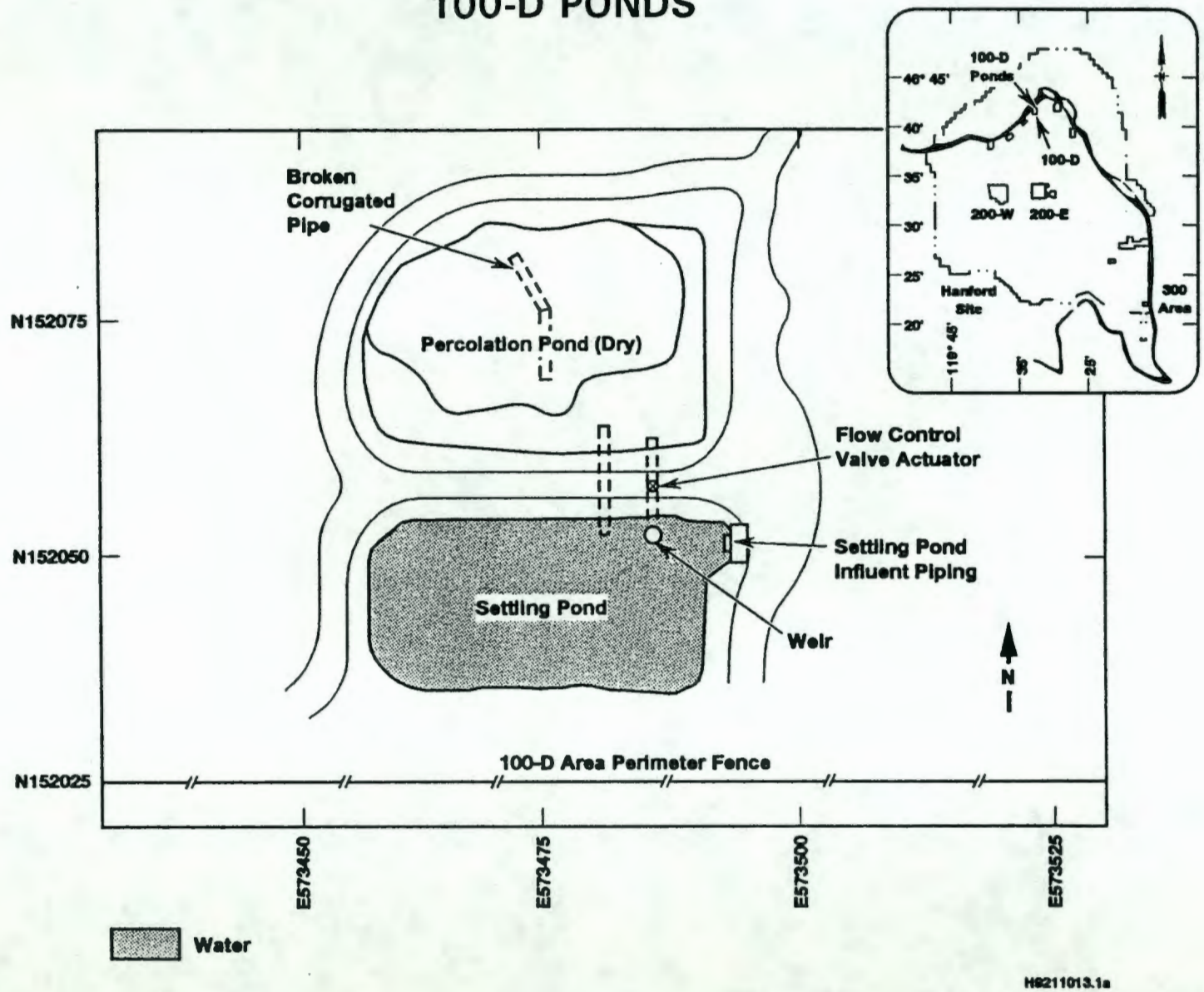
Date

Thomas M. Anderson — 2/4/93

Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

Date

100-D PONDS


Broken Corrugated Pipe
Percolation Pond (Dry)
Flow Control Valve Actuator
Settling Pond Influent Piping
Settling Pond
Weir
N
100-D Area Perimeter Fence
N152075
N152050
N152025
E573450
E573475
E573500
E573525
Water
100-D Ponds
100-D
200-W
200-E
Hanford Site
300 Area
46° 45'
40'
35'
30'
25'
20'
119° 45'
35'
25'
H9211013.1a

100-D PONDS

46°41'51.322"
119°32'19.568"

92102814-22CN
(PHOTO TAKEN 1992)

9 3 1 2 9 7 9 1 5 5 0

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

FORM **3**

DANGEROUS WASTE PERMIT APPLICATION

1. 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.
0 8		8 4

FOR EXISTING FACILITIES, PROVIDE THE DATE *(mo., day, & yr.)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to 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 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. 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	T 0 4	150	U		7				
2					8				
3					9				
4					10				

CONTINUE ON REVERSE

9 3 1 2 9 9 1 5 5 1

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.

T04

The 200 West Area Ash Pit Demolition Site (Ash Pit Demolition Site) is located in the 200 West Area of the Hanford Facility. The Ash Pit Demolition Site was used to detonate explosive waste that was generated on the Hanford Site. The process design capacity for treatment at the Ash Pit Demolition Site was 150 gallons (569 liters) per 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 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

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

I.D. NUMBER *(entered from page 1)*: 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	D001	1,000	K	T04	Treatment-Other (Demolition)
2	D002				
3	D003				
4	D007				
5	D018				
6	P003				
7	U019				
8	U056				
9	U098				
10	U108				
11	U112				
12	U117				
13	U133				
14	U135				
15	U154				
16	U213				
17	U220				
18	WC01				
19	WP01				
20	WT01				
21	WT02				Included with above.
22					
23					
24					
25					
26					

9312916553

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 Ash Pit Demolition Site was used for the treatment of shock-sensitive or potentially explosive chemical waste. This waste exhibited the dangerous waste characteristics of ignitability (D001) and reactivity (D003). Some of the compounds also exhibited the dangerous waste characteristic of corrosivity (D002) and may have the state-only designations for toxic dangerous waste (WT02) and carcinogenic extremely hazardous waste (WC01). The estimated annual quantity of waste of 1,000 kilograms (2204 pounds) represents the total amount of waste that is believed to have been treated at the Ash Pit Demolition Site.

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 the 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
John D. Wagoner, Manager U.S. Department of Energy Richland Field Office	John D. Wagoner	11/19/92

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

9 3 1 2 9 - 9 1 5 5 4

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.

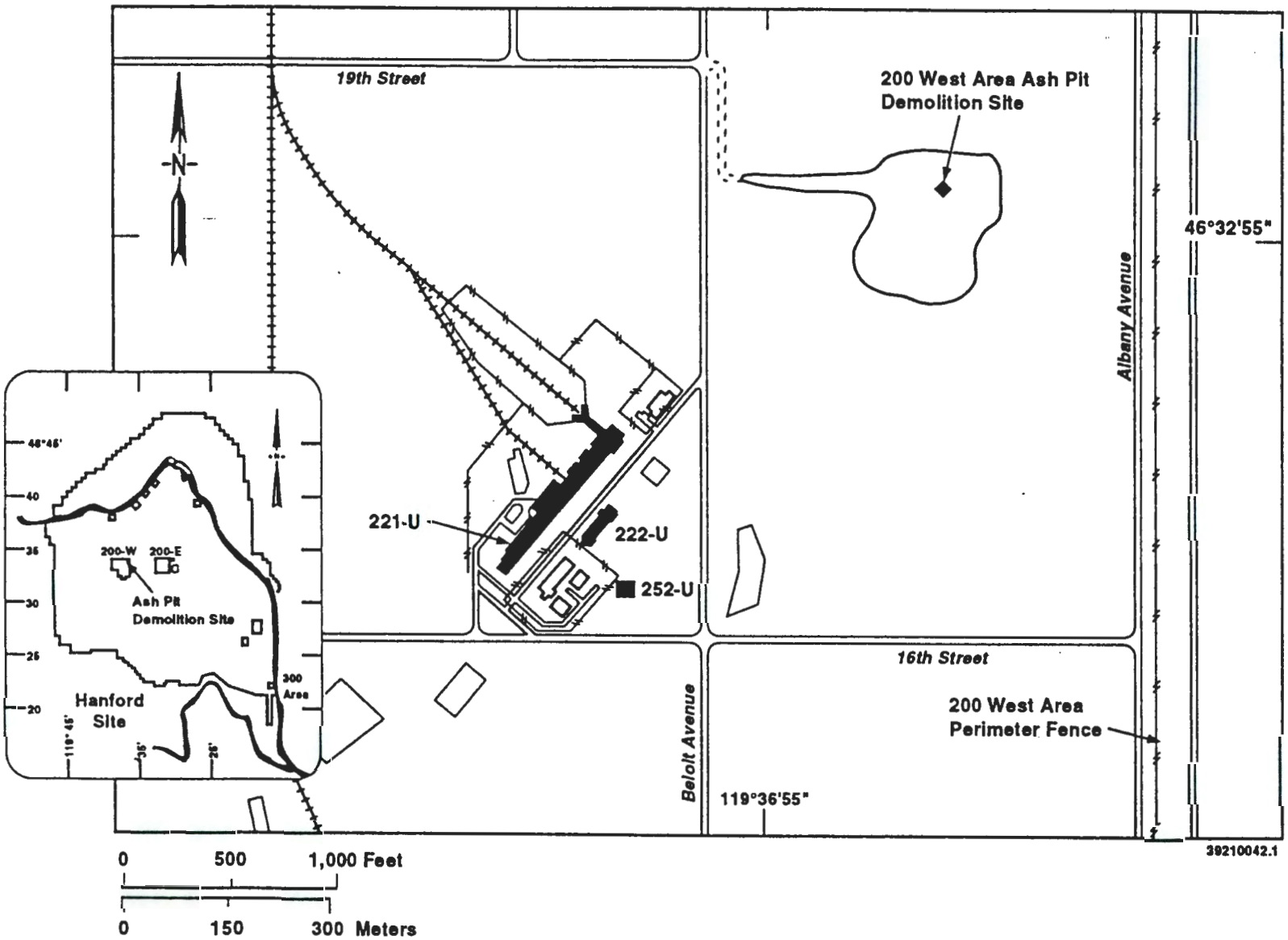
John D. Wagoner — 11/18/92
Date

Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
Richland Field Office

Thomas M. Anderson — 10-30-92
Date

Co-Operator
Thomas M. Anderson, President
Westinghouse Hanford Company

200 West Area Ash Pit Demolition Site
Site Plan



200 WEST AREA ASH PIT DEMOLITION SITE

46°33'10.37"
119°36'44.58"

92070921-7w
(PHOTO TAKEN 1992)

9 3 1 2 9 3 9 1 5 5 7

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

FORM 3

DANGEROUS WASTE PERMIT APPLICATION

1. 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. 0 8 | DAY | YR. 8 4

FOR EXISTING FACILITIES, PROVIDE THE DATE *(mo., day, & yr.)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to 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 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	D
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. 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	T 0 4	150	U		*7*				
2					*8*				
3					*9*				
4					*10*				

CONTINUE ON REVERSE

9 3 1 2 9 - 9 1 5 5 8

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.

T04

The 218-E-8 Borrow Pit Demolition Site (218-E-8 Demolition Site) is located in the 200 East Area of the Hanford Facility. The 218-E-8 Demolition Site was used to detonate explosive waste that was generated on the Hanford Site. The process design capacity for treatment for the 218-E-8 Demolition Site was 150 gallons (569 liters) per 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 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

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

I.D. NUMBER *(entered from page 1)*: 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	1,000	K	T04	Treatment-Other (Demolition)
2	D002				
3	D003				
4	D035				
5	U098				
6	U108				
7	U159				
8	WC01				
9	WT01				
10	WT02				Included with above.
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

9 3 1 2 9 9 1 5 6 0

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 218-E-8 Demolition Site was used for the treatment of shock-sensitive or potentially explosive chemical waste. This waste exhibited the dangerous waste characteristics of ignitability (D001) and reactivity (D003). Some of the compounds also exhibited the dangerous waste characteristic of corrosivity (D002) and may have the state-only designations for toxic dangerous waste (WT02) and carcinogenic extremely hazardous waste (WC01). The estimated annual quantity of waste of 1,000 kilograms (2204 pounds) represents the total amount of waste that is believed to have been treated at the 218-E-8 Demolition Site.

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 the 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
John D. Wagoner, Manager U.S. Department of Energy Richland Field Office	John D. Wagoner	11/18/92

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

9312291561

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.

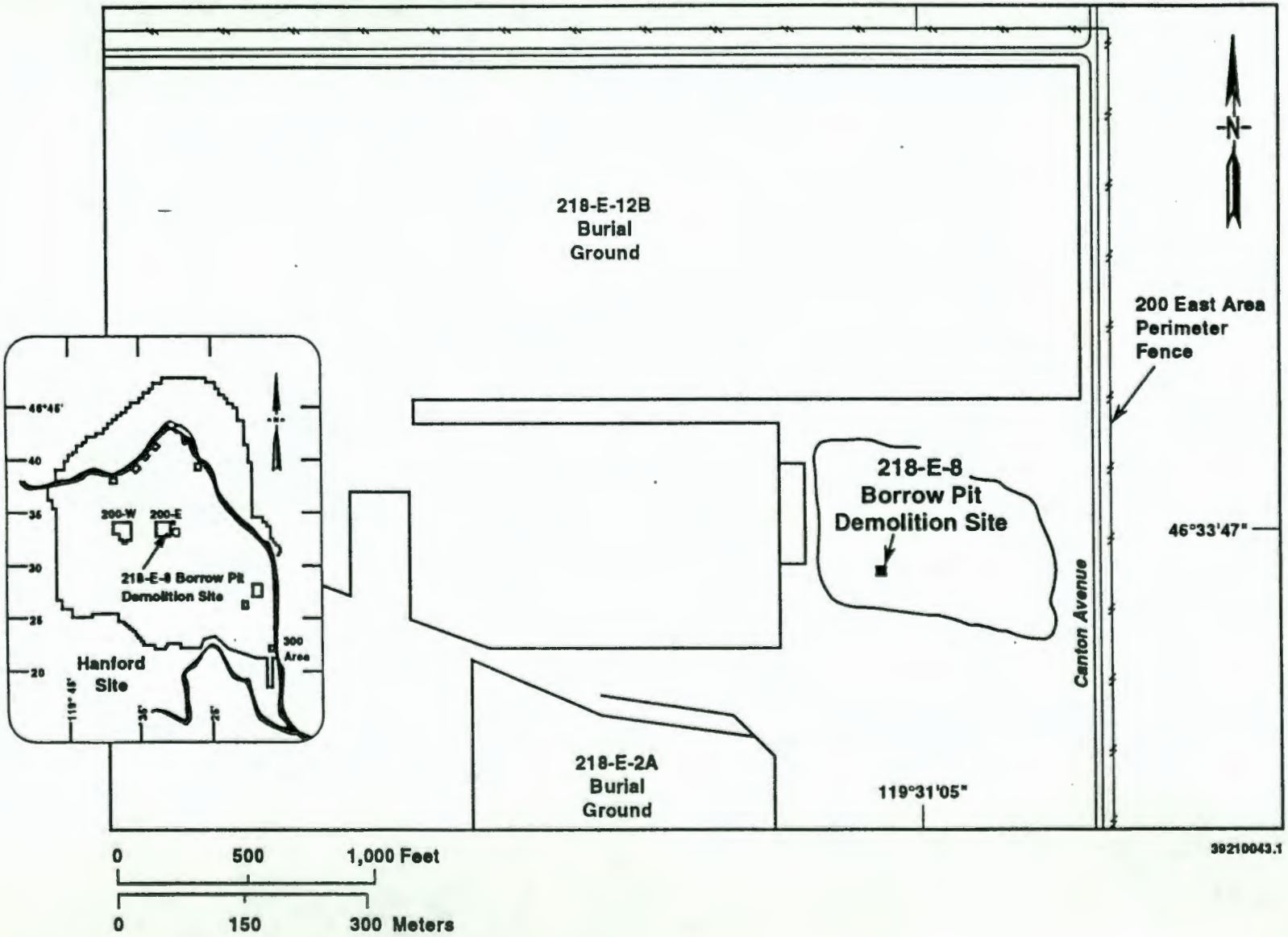
John D. Wagoner — 11/18/92
Date

Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
Richland Field Office

Thomas M. Anderson — 10-30-92
Date

Co-Operator
Thomas M. Anderson, President
Westinghouse Hanford Company

218-E-8 Borrow Pit Demolition Site
Site Plan



218-E-8 BORROW PIT DEMOLITION SITE

46°33'47"
119°31'05"

92070921-1c
(PHOTO TAKEN 1992)

9 3 1 2 9 3 9 1 5 6 4

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

FORM 3

DANGEROUS WASTE PERMIT APPLICATION

1. 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.
0 3	1 8	7 7

FOR EXISTING FACILITIES, PROVIDE THE DATE *(mo., day, & yr.)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to 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 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	*S 0 2*	*600*	*G*		*5*				
X-2	*T 0 3*	*20*	*E*		*6*				
1	T 0 4	230,000	U		*7*				
2					*8*				
3					*9*				
4					*10*				

CONTINUE ON REVERSE

9 3 1 2 9 - 9 1 5 6 5

Continued from the front.

II. PROCESSES (continued)

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

T04

The 242-A Evaporator is located in the 200 East Area of the Hanford Facility and is used to treat mixed waste from the Double-Shell Tank System by removing water and most volatile organics. Two waste streams leave the 242-A Evaporator following the treatment process. The first waste stream, the concentrated slurry (approximately 30 to 40 percent of the water is removed during evaporation along with a portion of the volatile organics), is pumped back into the Double-Shell Tank System. The second waste stream, process condensate (containing a portion of the volatile organics removed from the mixed waste during the evaporation process), is routed through condensate filters for treatment before release to a retention basin (Liquid Effluent Retention Facility). Offgasses from the process are routed through a deentrainment unit, a prefilter, and high efficiency particulate air filters before being discharged to the environment. The 242-A Evaporator is used to treat up to 230,000 gallons (871,000 liters) of mixed waste per 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 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

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

I.D. NUMBER *(entered from page 1)*

W	A	7	8	9	0	0	0	8	9	6	7

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

LINE NO.	A. DANGEROUS WASTE NO. *(enter code)*	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE *(enter code)*	D. PROCESSES 1. PROCESS CODES *(enter)*	D. PROCESSES 2. PROCESS DESCRIPTION *(if a code is not entered in D(1))*
1	D001	1,400,000,000	P	T04	Treatment - Evaporation
2	D002				
3	D003				
4	D004				
5	D005				
6	D006				
7	D007				
8	D008				
9	D009				
10	D010				
11	D011				
12	D018				
13	D019				
14	D022				
15	D028				
16	D029				
17	D030				
18	D033				
19	D034				
20	D035				
21	D036				
22	D038				
23	D039				
24	D040				
25	D041				
26	D043				

9 3 1 2 9 9 1 5 6 7

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

D. NUMBER *(entered from page 1)*

W	A	7	8	9	0	0	0	8	9	6	7

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

LINE NO.	A. DANGEROUS WASTE NO. *(enter code)*	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE *(enter code)*	D. PROCESSES 1. PROCESS CODES *(enter)*	D. PROCESSES 2. PROCESS DESCRIPTION *(if a code is not entered in D(1))*
1	WT01	1,400,000,000	P	T04	Treatment - Evaporation (cont)
2	WT02				
3	WC01				
4	WC02				
5	WP01				
6	WP02				
7	F001				
8	F002				
9	F003				
10	F004				
11	F005				Included With Above
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

9 3 1 2 9 - 9 1 5 6 8

Continued from the front.

DESCRIPTION OF DANGEROUS WASTES (continued)

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

The 242-A Evaporator is used to treat mixed waste from the Double-Shell Tank System. Two waste streams leave the 242-A Evaporator following the treatment process: a concentrated slurry waste stream which is routed to the Double-Shell Tank System and a process condensate effluent waste stream which is routed to the Liquid Effluent Retention Facility.

The concentrated slurry is regulated as a dangerous waste due to corrosivity and toxicity, and is regulated as an extremely hazardous waste (EHW) due to toxicity under the mixture rule. This mixed waste stream is considered corrosive because the pH of the waste exceeds 12.5 standard units. This mixed waste stream is also characterized as toxic due to the concentrations of chromium, lead, cadmium, and silver and EHW toxic due to the concentrations of nitrite and hydroxide ions.

The process condensate effluent is regulated as a dangerous waste due to the toxicity of ammonia and the presence of the F001, F002, F003, F004, and F005 constituents.

The list of dangerous constituents under item IV.A includes toxic constituents of cadmium and silver. These constituents have not yet been detected in the waste, but knowledge of the process providing waste to the 242-A Evaporator indicates the strong possibility that these constituents will be in the waste. The list of Toxicity Characteristics Leaching Procedure constituents under item IV.A have not been detected in the waste; however, the potential exists for treating these constituents at the 242-A Evaporator. All other waste listed on this form is based on analytical data. The annual waste quantity listed under item IV.B.1 was calculated using an operating schedule of 365 days per year, and a specific gravity of 2.0 for the waste. This was done to provide a maximum estimate of annual waste quantity.

9 3 1 2 9 9 1 5 6 9

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 the 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
John D. Wagoner, Manager U.S. Department of Energy Richland Field Office	for [signature]	4/13/93

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.

for

Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
Richland Field Office

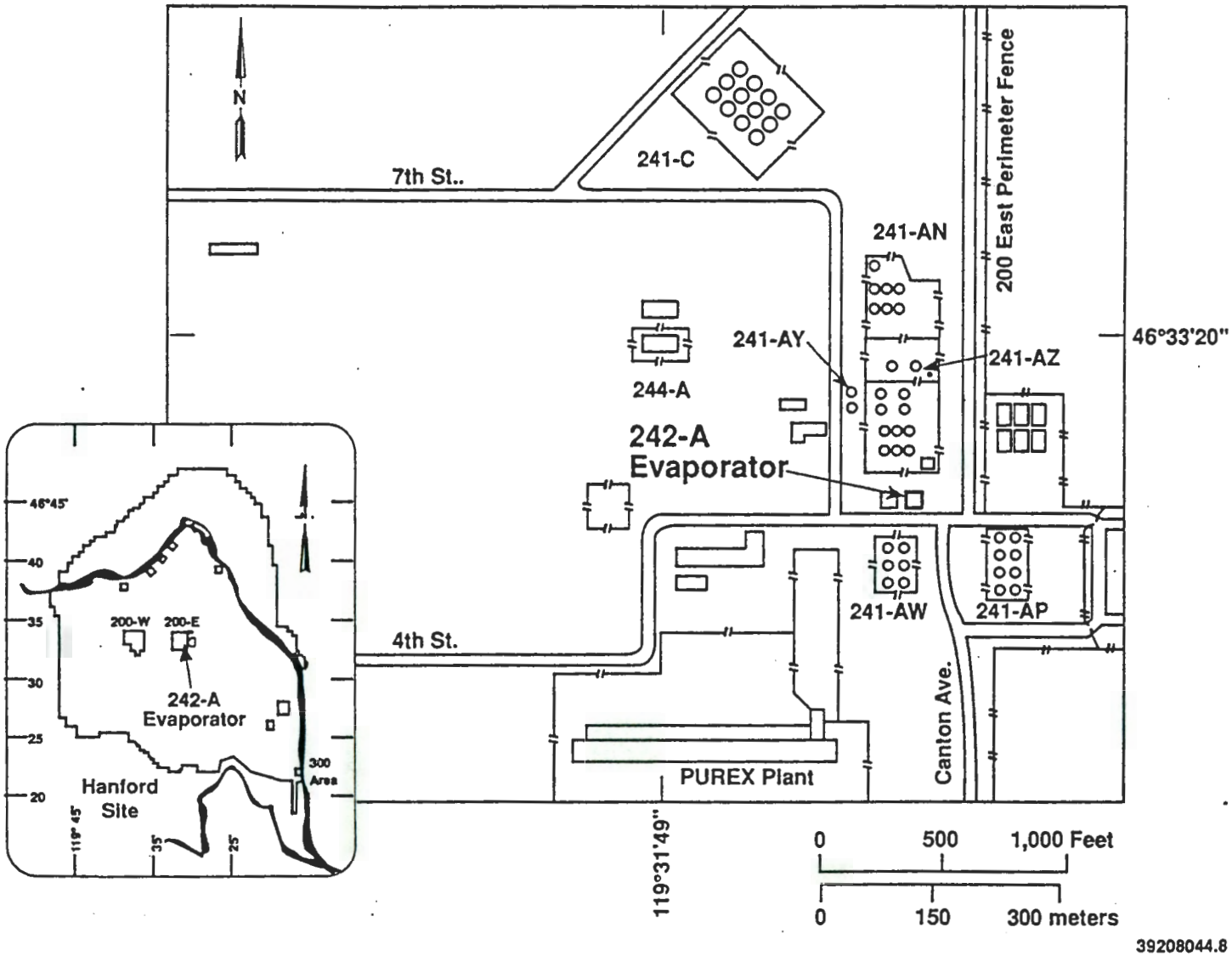
4/13/93
Date

Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

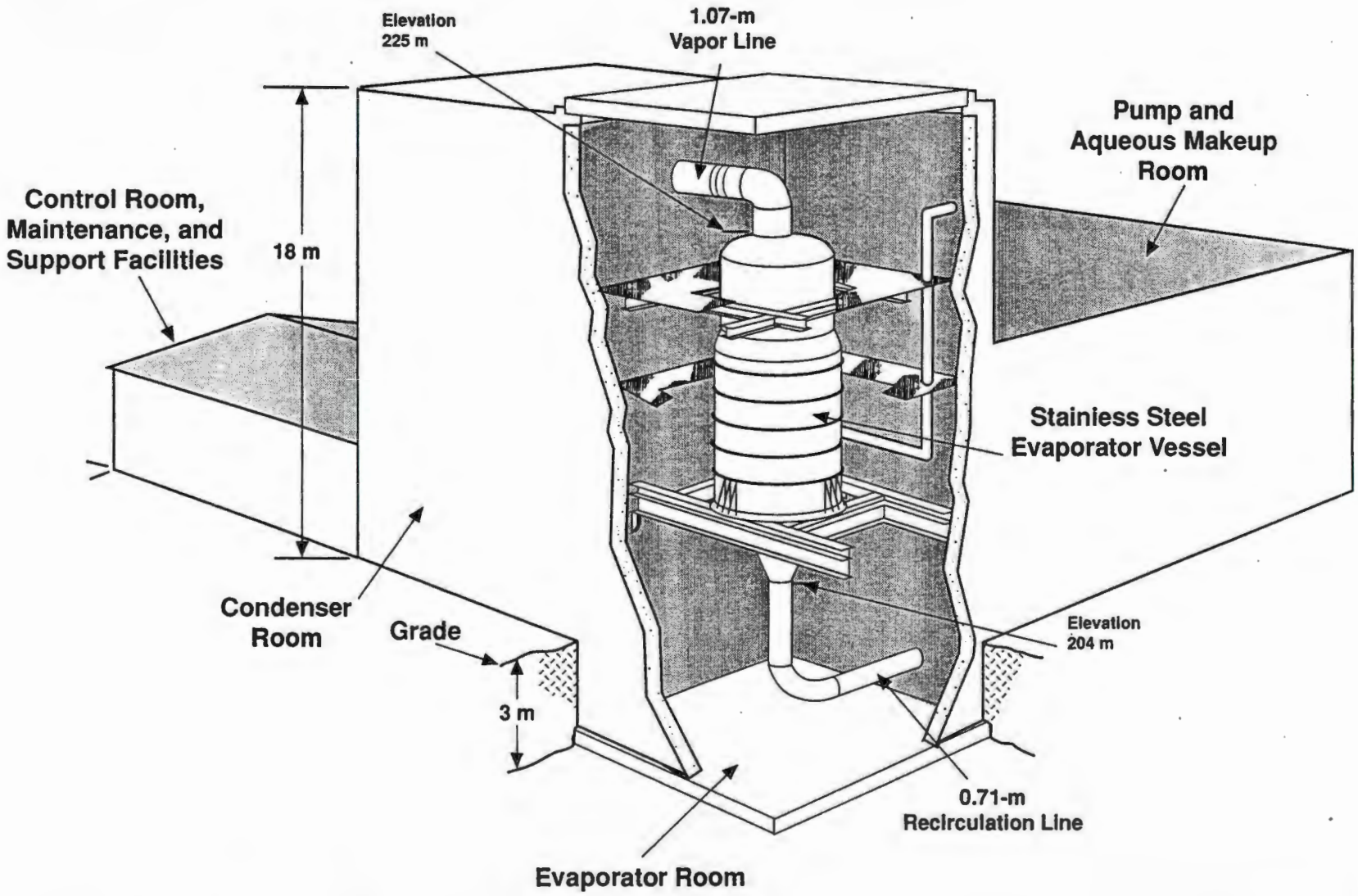
3/12/93
Date

9 1 1 6 0 7 0

242-A Evaporator
Site Plan



242-A Evaporator



For conversions, apply the following:
Meters to feet - divide meters by 0.3048.

39211048.1a

242-A EVAPORATOR

46°33'12"
119°31'37"

91051644-1CN
(PHOTO TAKEN 1991)

9 3 1 2 9 3 9 1 5 7 3

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 1 2 | DAY 1 5 | YR 8 6 — FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to 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
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	O

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)	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)	2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S 0 2	600	G		5	D 8 1	185	A	
X-2	T 0 3	20	E		6				
1	T 0 4	101,000	U		7				
2	T 0 2	101,000	U		8				
3	S 0 2	800	G		9				
4	T 0 1	1,315	U		10				

CONTINUE ON REVERSE

9 3 1 2 9 9 1 5 7 4

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.

T04, T02, S02, T01, D81

The Grout Treatment Facility (GTF) will treat mixed waste by mixing the liquid waste with grout forming solids in an in-line mixer (T04), which is part of a unit called the Grout Processing Facility. This process forms a slurry that is pumped to a concrete disposal vault. The vault is operated as a surface impoundment (T02) while the grouted waste slurry hardens. When the slurry material has hardened, the vault is sealed and closed.

The GTF has a total production capacity for treatment of approximately 101,000 gallons (382,315 liters) per day (24-hour period) (T04, T02). The total production capacity of 101,000 gallons (382,315 liters) consists of 79,000 gallons (299,039 liters) of liquid waste and 22,000 gallons (96,908 liters) of dry grout material.

The Liquid Collection Tank (LCT) stores dangerous waste and potential mixed waste from any spill or leakage collected in the sumps, spent flush and decontamination solutions from internal and external system cleanups, and excess liquid and leachate pumped back from the vaults (S02). The LCT has a design capacity of 800 gallons (3,028 liters). The dangerous waste is treated in the LCT to make the waste more amenable for storage in the Double-Shell Tank System (T01). The LCT is capable of treating approximately 1,315 gallons (4,978 liters) per day of dangerous waste.

The GTF vaults have a total design capacity of approximately 185 acre-feet (228,198 cubic meters) consisting of 145 acre-feet (178,858 cubic meters) of waste and 40 acre-feet (49,340 cubic meters) of grout material (D81). The GTF will have a total of 43 individual vaults with each individual vault having a storage capacity of approximately 4.3 acre-feet (5,304 cubic meters) [1,400,000 gallons (5,299,420 liters)] of mixed waste.

The technology and process operation of the GTF was demonstrated in August 1988 through July 1989 with the treatment of 1,000,000 gallons (3,785,400 liters).

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
POUNDS	P
TONS	T

METRIC UNIT OF MEASURE	CODE
KILOGRAMS	K
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)*	B. PROCESSES 1. PROCESS CODES *(enter)*	B. 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

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	D002	100,000,000	P	T04	T02	S02	T01	Treatment - Other Solidification,
2	D006							Treatment - Surface Impoundment, Storage - Tank, and
3	D007							Treatment - Tank
4	D008							
5	D011							
6	D029							
7	D036							
8	D040							
9	F001							
10	F002							
11	F003							
12	F005							
13	WT01							Included With Above
14	WT02	100,000,000	P	D81				Disposal - Landfill
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								

9 3 1 2 9 9 1 5 7 6

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 dangerous waste being treated by the GTF has been determined to have the waste characteristics of corrosivity (D002, pH greater than or equal to 12.5). The list of dangerous waste under Section IV.A has been added because of the potential of this waste being treated and stored at the GTF. This dangerous waste consist of toxic constituents cadmium (D006), chromium (D007), lead (D008), silver (D011), 1,1-dichlorethylene (D029), nitrobenzene (D036), trichlorethylene (D040), spent nonhalogenated solvents (F001, F002, F003 and F005), and state-only extremely hazardous waste (WT01) in accordance with the Washington Administrative Code 173-303-084 "Dangerous Waste Mixtures." Following the treatment (deactivation and solidification) of the waste for corrosivity, the waste is disposed of in vaults and is considered a state-only dangerous waste (WT02) due to toxic characteristics of the waste.

Dangerous waste constituents cadmium (D006) and silver (D011), which are considered toxic characteristic waste, have not been detected in the waste. Process knowledge of the waste being sent to the GTF indicates a strong possibility that these constituents will be in the waste. Chromium (D007) and lead (D008) have been detected in the waste based on actual analytical data.

The Estimated Annual Quantity of Dangerous Waste of 100,000,000 pounds (45,359,200 kilograms) per year is based on approximately 8,450,000 gallons (31,985,785 liters) of waste, or approximately six vaults. The total filling time of these vaults is estimated to be 84 days per year at a maximum pouring rate of 101,000 gallons (382,315 liters) per day.

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 the 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 th there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME *(print or type)*	SIGNATURE	DATE SIGNED
John D. Wagoner, Manager U.S. Department of Energy Richland Field Office	John D. Wagoner	7/22/92

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 th 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

9 3 1 2 9 9 1 5 7 7

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 D. Wagoner — 7/22/92

Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
DOE Richland Field Office

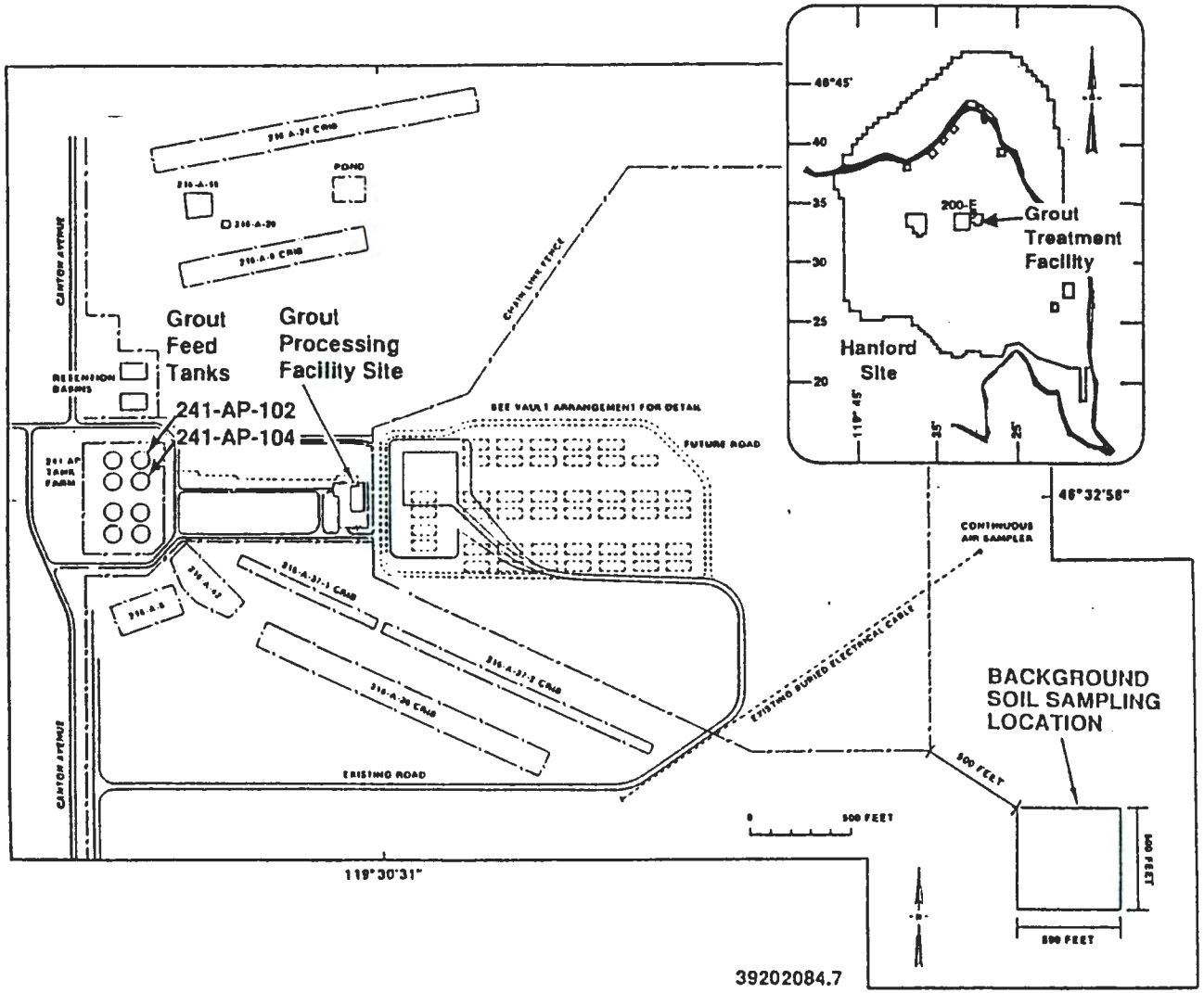
Date

Thomas M. Anderson — 6/19/92

Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

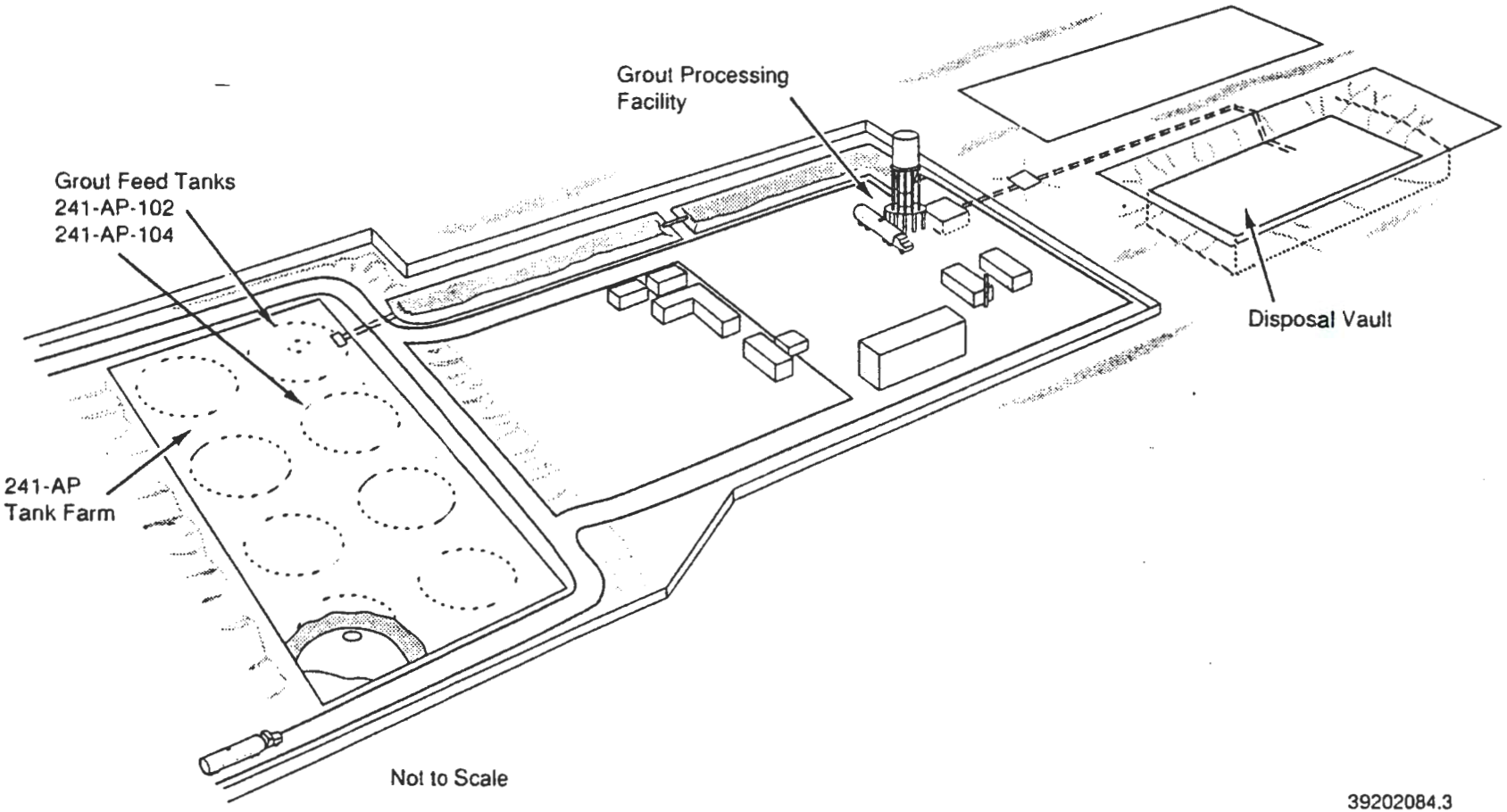
Date

GROUT TREATMENT FACILITY
SITE PLAN



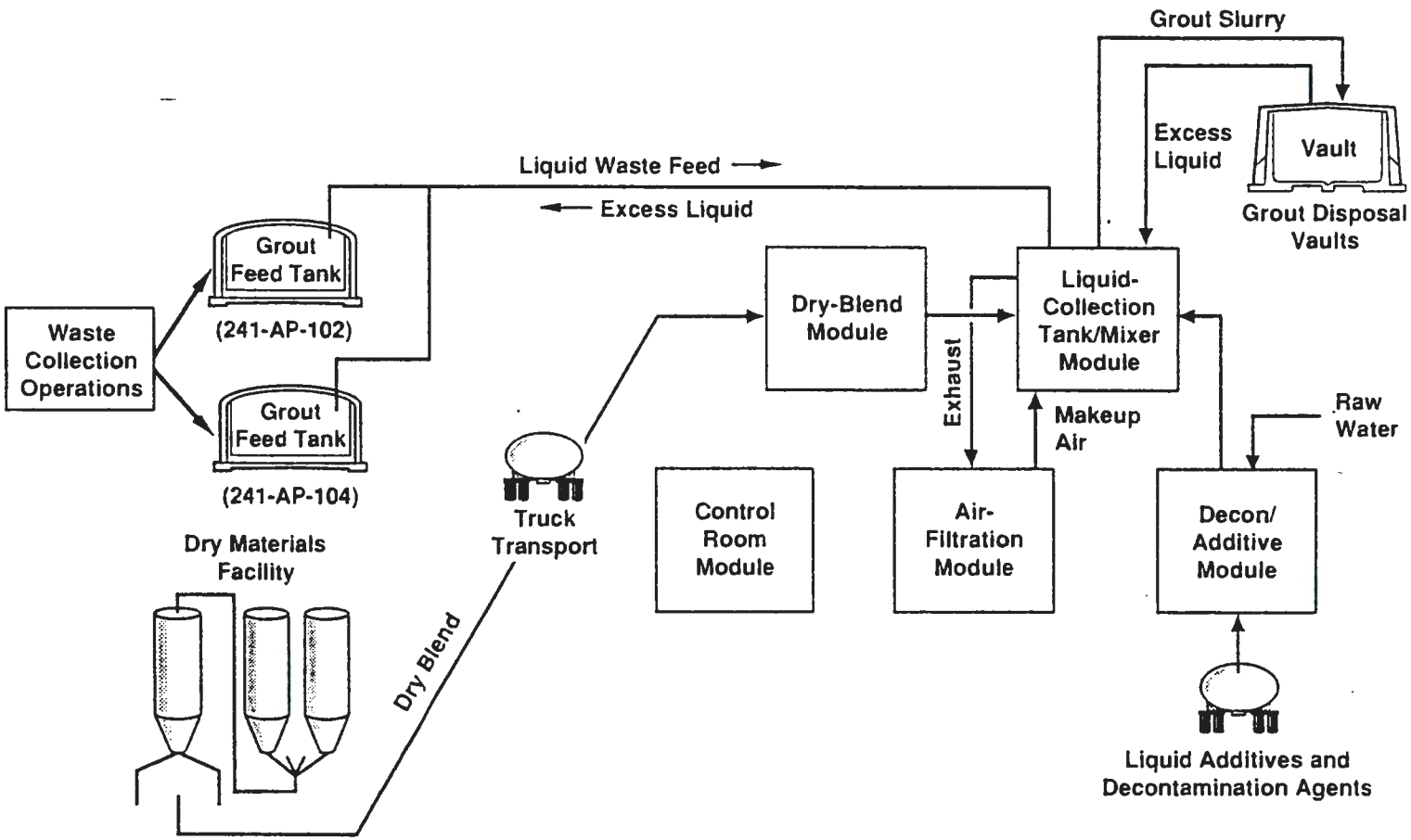
WA7890008967

Grout Treatment Facility Layout

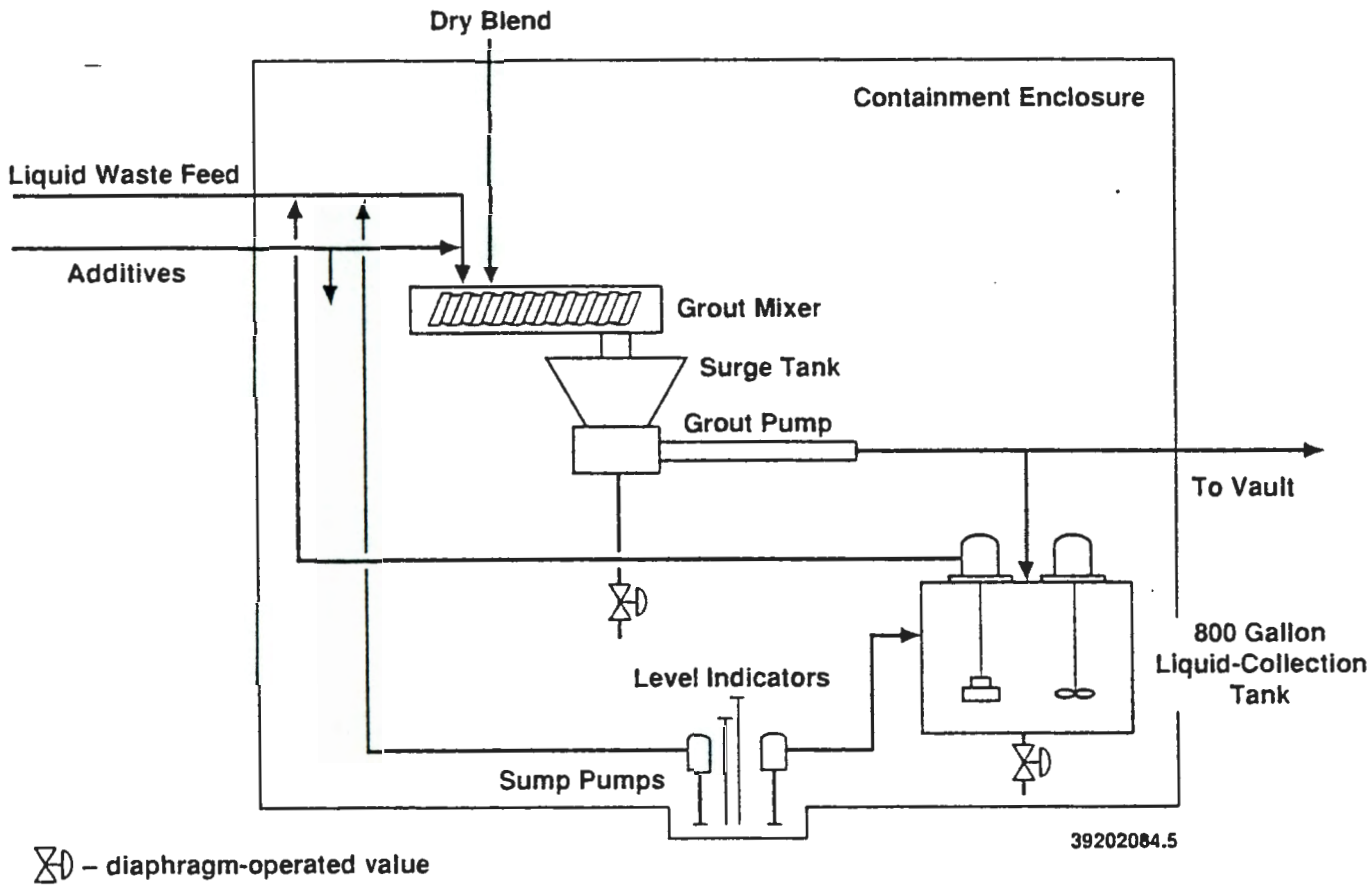


39202084.3

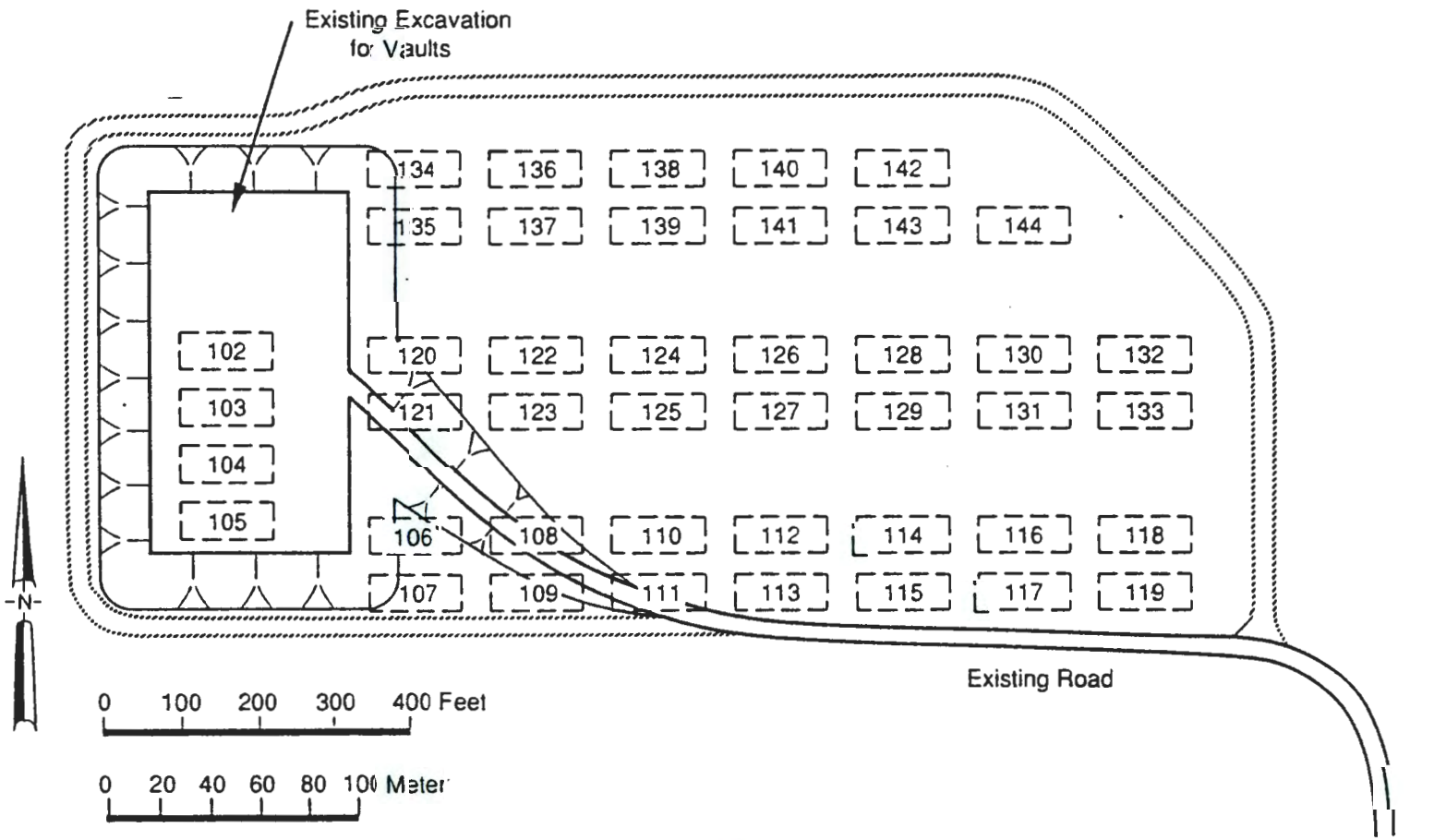
Grout Treatment Facility
Material Flow Diagram



Grout Treatment Facility
Liquid-Collection Tank/Mixer Module

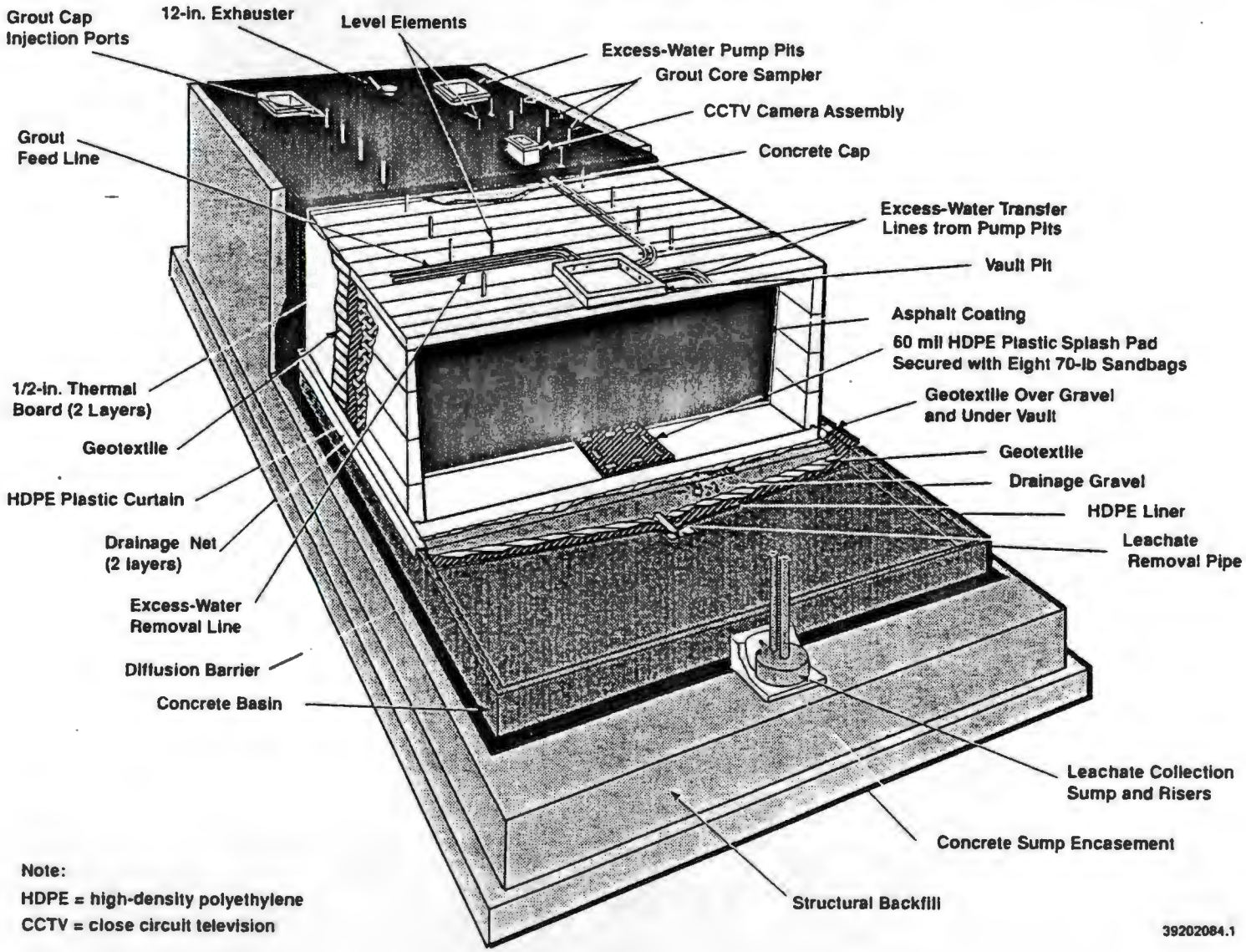


Grout Treatment Facility
Vault Arrangement



39202084.4

Grout Vault – Cross Section (Typical)



Note:
HDPE = high-density polyethylene
CCTV = close circuit television

GROUT TREATMENT FACILITY - AERIAL VIEW

46°32'58"
119°30'31"

39202084.2
(PHOTO TAKEN 1991)

9 3 1 2 9 3 9 1 5 8 5

GROUT TREATMENT FACILITY

GROUT PROCESSING FACILITY

46°32'58"
119°30'31"

8802516-9CN
(PHOTO TAKEN 1988)

9 3 1 2 9 0 9 1 5 8 6

GROUT TREATMENT FACILITY

LIQUID COLLECTION TANK

46°32'58"
119°30'31"

89101636-13CN
(PHOTO TAKEN 1989)

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Please print or type in the unshaded areas only
(All – in 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. 1 1 DAY 2 4 YR 4 8 — FOR EXISTING FACILITIES, PROVIDE THE DATE *(mo., day, & yr.)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to 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	D
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	O

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 2	17,200	G		7				
2	T 0 1	4,300	U		8				
3					9				
4					10				

9 3 1 2 9 9 1 5 8 8

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.

S02 - The 241-Z Treatment and Storage Tanks (241-Z) consists of storage tanks D-4, D-6, D-7, and D-8 and treatment and storage tank D-5[a]. Tank D-6 has been taken out of service and isolated. Tanks D-4, D-7, D-8, and treatment and storage tank D-5, located in the 241-Z Building, have a combined storage capacity of 17,200 gallons (65,102 liters) or 4,300 gallons (16,276 liters) per tank. Tanks D-4, D-7, and D-8 store the mixed waste from the Plutonium Finishing Plant (PFP) before being transferred to tank D-5 for treatment. The mixed waste that has been treated in tank D-5 is stored until transferred to the Double-Shell Tank (DST) System.

T01 - Treatment that occurs in tank D-5 consists of a batch process that includes the addition of sodium hydroxide or potassium hydroxide, sodium nitrite, and ferric nitrate. The sodium hydroxide or potassium hydroxide raises the free hydroxide ion concentration of the mixed waste to at least 0.01 Molar, to inhibit precipitation of aluminum hydroxide. The sodium nitrite is added to inhibit corrosion of the transfer piping and the DST System. Ferric nitrate solution is added to provide 1 percent stable solids for transfer to the DST System. This treatment process makes the mixed waste more amenable for transfer through double-encased lines to the collection tank in the 244-TX Building and for storage in the DST System.

---

[a]Project C-031H "PFP Liquid Effluent Treatment Facility," will replace four of the existing five mixed waste storage tanks located in the 241-Z Building. Tank D-5 will be isolated and placed out of service; tanks D-4 and D-7 will be used for treatment and storage; and tanks D-6 and D-8 will be used for storage. The treatment and storage capacities will remain the same as the present system. The project is scheduled to be completed by December 1995.

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)	B. PROCESSES 1. PROCESS CODES (enter)	B. 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

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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	3,000,000	P	T01				Treatment-Tank
2	D007							
3	D008							
4	D011							
5	D019							
6	WT01							
7	WT02							Included with Above
8								
9	D002	5,500,000	P	S02				Storage-Tank
10	D007							
11	D008							
12	D011							
13	D019							
14	WT01							
15	WT02							Included with Above
16								
17								
18								
19								
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21								
22								
23								
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25								
26								

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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 3.

Before treatment, the mixed waste in the four storage tanks is corrosive (D002, pH less than 2.0) and contains predominately nitric acid. Additional chemical constituents known to be present through process knowledge, modeling, and some process sampling include: chromium (D007), lead (D008), silver (D011), carbon tetrachloride (D019), aluminum nitrate, aluminum fluoride, potassium hydroxide, potassium fluoride, magnesium nitrate, ferric nitrate, calcium nitrate, and other trace metal ions. Depending on the waste stream being treated, these waste constituents may be designated state-only dangerous waste WT01 (Toxic, Extremely Hazardous Waste) or WT02 (Toxic, Dangerous 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; an sites of future storage, treatment or disposal areas *(see instructions for more detail)*.

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

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

VIII. FACILITY OWNER

[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 Sectic 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*

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 inquiry of those individuals immediately responsible for obtaining the information. I believe that the submitted information is true, accurate, and complete. I am awa there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME *(print or type)*	SIGNATURE	DATE SIGNED
John D. Wagoner, Manager United States Department of Energy DOE Richland Field Office	for [illegible]	6-24-92

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 inquiry of those individuals immediately responsible for obtaining the information. I believe that the submitted information is true, accurate, and complete. I am awa there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME *(print or type)*	SIGNATURE	DATE SIGNED
SEE ATTACHMENT		

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9 3 1 2 9 . 9 1 5 9 1

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.

for

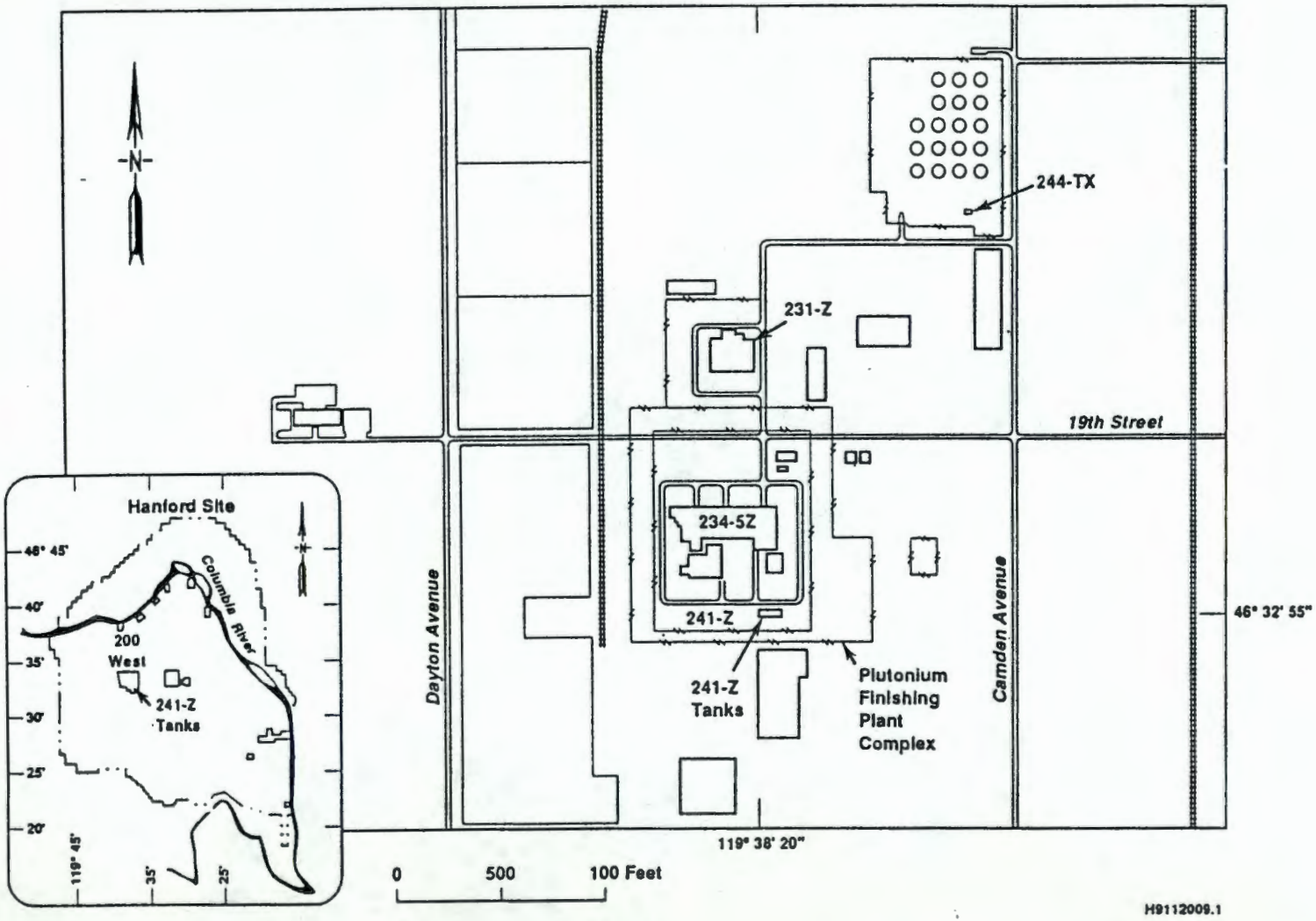
Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
DOE Richland Field Office

6-24-92
Date

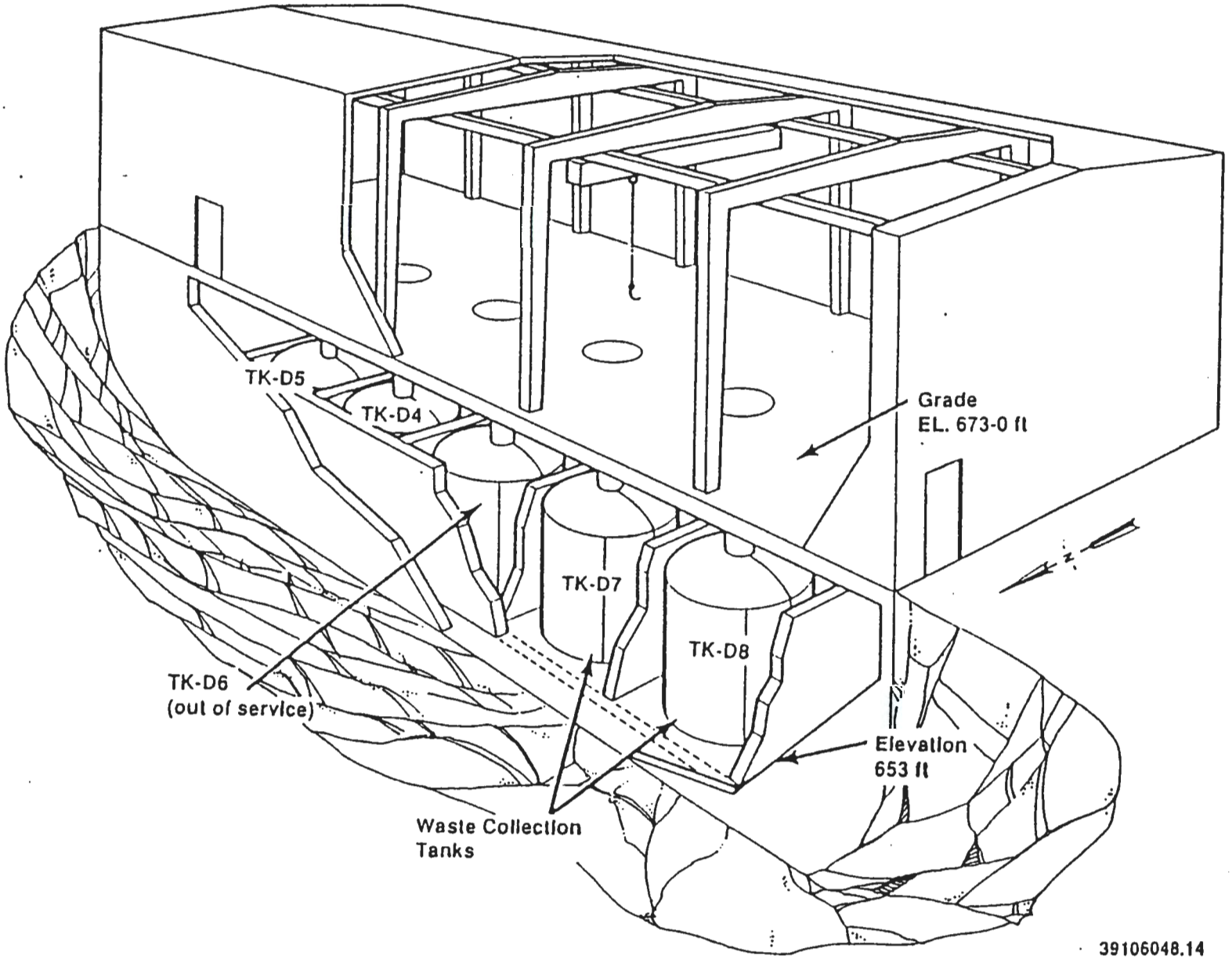
Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

6/3/92
Date

241-Z Treatment and Storage Tanks



Cutaway View of the 241-Z Building



241-Z BUILDING

46°32'55"
119°38'20"

8706219-5CN
(PHOTO TAKEN 1987)

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Please print or type in the unshaded areas only
(NOTE – the 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 0 6 | DAY 0 1 | YR 5 1 — FOR EXISTING FACILITIES, PROVIDE THE DATE *(mo., day, & yr.)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to 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	Q
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	G

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)	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)	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 2	9,500	G		7				
2	T 0 1	206	U		8				
3	S 0 1	540	G		9				
4					10				

9 3 1 2 9 1 5 9 9 6

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.

The 222-S Laboratory Complex consists of following two waste management units, the 219-S Waste Handling Facility and the 222-S Dangerous and Mixed Waste Storage Area. Processes associated with these two units are described as follows:

S02,T01 - The 219-S Waste Handling Facility is located northeast of the 222-S Analytical Laboratory Building. The 219-S Waste Handling Facility contains three stainless steel tanks: 101 (4,000 gallon), 102 (4,000 gallon), and 103 (1,500 gallon) located in a belowground concrete vault (S02). Tanks 101 and 103 are used for the primary and backup storage of mixed waste from the 222-S Analytical Laboratory. The mixed waste is transferred from tanks 101 and 103 to tank 102 for treatment (T01) and storage before transfer to the Double-Shell Tank (DST) System. The mixed waste is treated in tank 102 with sodium hydroxide (NaOH) to a pH greater than or equal to 12.0 and with sodium nitrite ($NaNO_2$) to a concentration of 600 parts per million. This treatment process makes the mixed waste more amenable for storage in the DST System. The maximum process design capacity of the three storage tanks is 9,500 gallons. The maximum treatment process design capacity for tank 102 is 206 gallons per day (75,000 gallons per year).

S01 - The 222-S Dangerous and Mixed Waste Storage Area is located on the north side of the 222-S Analytical Laboratory Building. The 222-S Dangerous and Mixed Waste Storage Area consists of two metal storage structures resting on a concrete pad. The 222-S Dangerous and Mixed Waste Storage Area stores a total of 36 55-gallon U.S. Department of Transportation-specified drums of mixed waste and nonradioactive dangerous waste (S01). Each metal storage structure holds a total of 18 drums of waste. The drums are stored at the 222-S Dangerous and Mixed Waste Storage Area until transferred to the Hanford Central Waste Complex (mixed waste) or the 616 Nonradioactive Dangerous Waste Storage Facility (nonradioactive dangerous waste) for storage and/or disposal. The maximum design capacity of the 222-S Dangerous and Mixed Waste Storage Area is 540 gallons (15 gallons per drum).

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 800 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 one 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 1	900	P	T 0 1 D 8 0	
X-2	D 0 0 2	400	P	T 0 1 D 8 0	
X-3	D 0 0 1	100	P	T 0 1 D 8 0	
X-4	D 0 0 2			T 0 1 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 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	626,000	P	S02	T01			Storage - Tank/Treatment - Tank
2	D004							
3	D005							
4	D006							
5	D007							
6	D008							
7	D009							
8	D010							
9	D011							
10	F003							
11	F005							
12	WT01							Included With Above
13	D001	12,000	P	S01				Storage - Container
14	D002							
15	D003							
16	D004							
17	D005							
18	D006							
19	D007							
20	D008							
21	D009							
22	D010							
23	D011							
24	D012							
25	D013							
26	D014							

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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	D015	12,000 (continued)	P	S01	Storage - Container (continued)
2	D016				
3	D017				
4	D018				
5	D019				
6	D020				
7	D021				
8	D022				
9	D023				
10	D024				
11	D025				
12	D026				
13	D027				
14	D028				
15	D029				
16	D030				
17	D031				
18	D032				
19	D033				
20	D034				
21	D035				
22	D036				
23	D037				
24	D038				
25	F001				
26	F002				

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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 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	F003	12,000 (continued)	P	S01	Storage - Container (continued)
2	F005				
3	F027				
4	WC01				
5	WC02				
6	WP01				
7	WT01				
8	WT02				Included With Above
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

9 3 1 2 9 - 9 1 6 0 0

Continued from the front

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

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

The mixed waste from the 222-S Analytical Laboratory flows by gravity through underground pipelines to the 219-S Waste Handling Facility for treatment and storage. The mixed waste is considered corrosive (D002) because of the presence of nitric acid and is treated before transfer to the DST System. The treated mixed waste consists of toxicity characteristics (D004 through D011), spent nonhalogenated solvents (F003 and F005), and state-only waste (WT01).

The mixed waste and nonradioactive dangerous waste drums that are stored at the 222-S Dangerous and Mixed Waste Storage Area consists of characteristic waste (D001, D002, and D003), toxicity characteristic waste (D004 through D038), spent halogenated and nonhalogenated solvents (F001, F002, F003, F005, and F027), and state-only waste (WC01, WC02, WP01, WT01, and WT02).

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 the attached drawings and photos

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

VIII. FACILITY OWNER

(8) 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
John D. Wagoner, Manager United States Department of Energy DOE Richland Field Office	Edward A. Goldberg	12/20/91

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 6

9312991601

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.

Edward A. Bullock — 12/20/91

Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
DOE Richland Field Office

Date

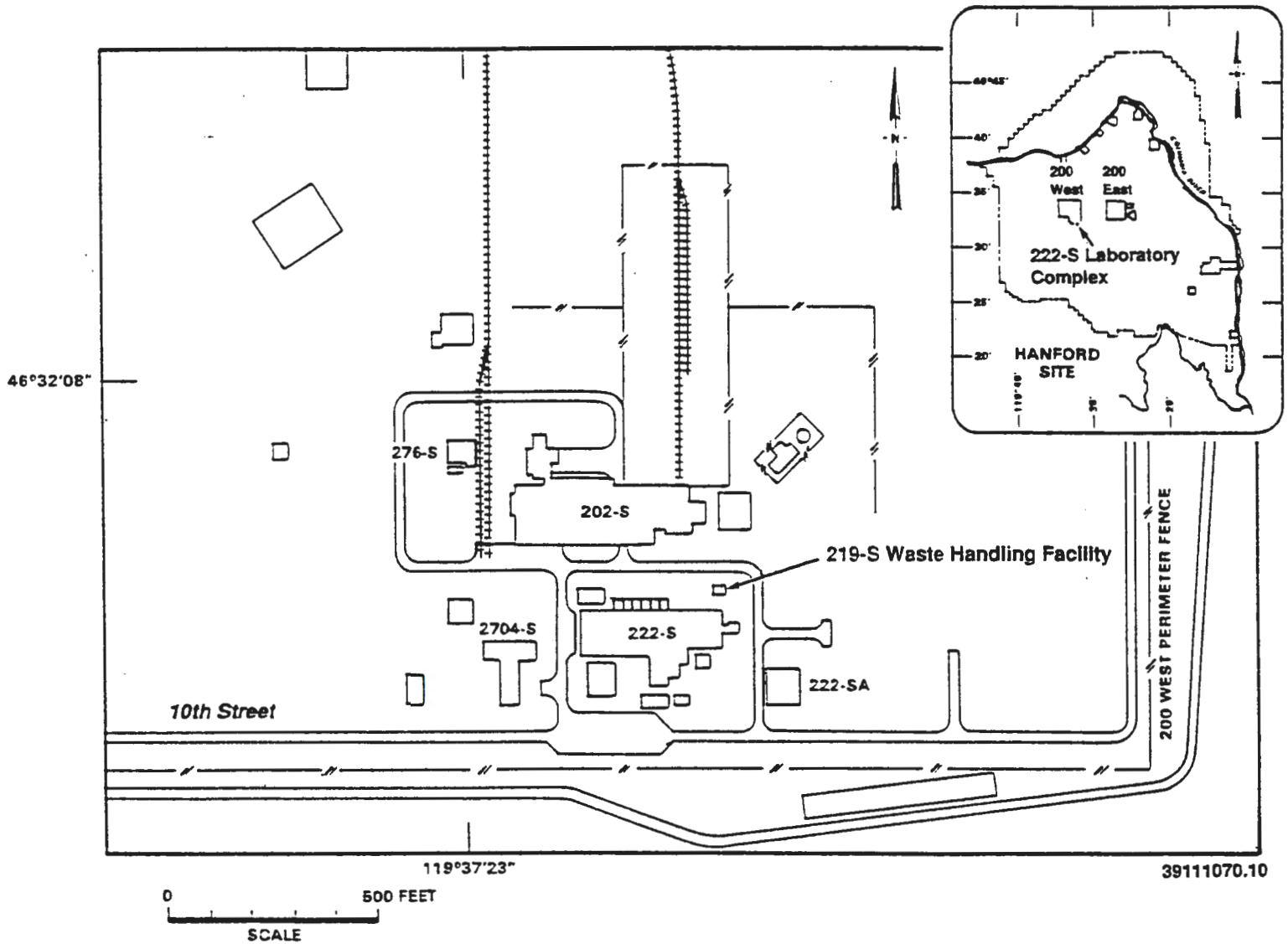
Thomas M. Anderson — 11/26/91

Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

Date

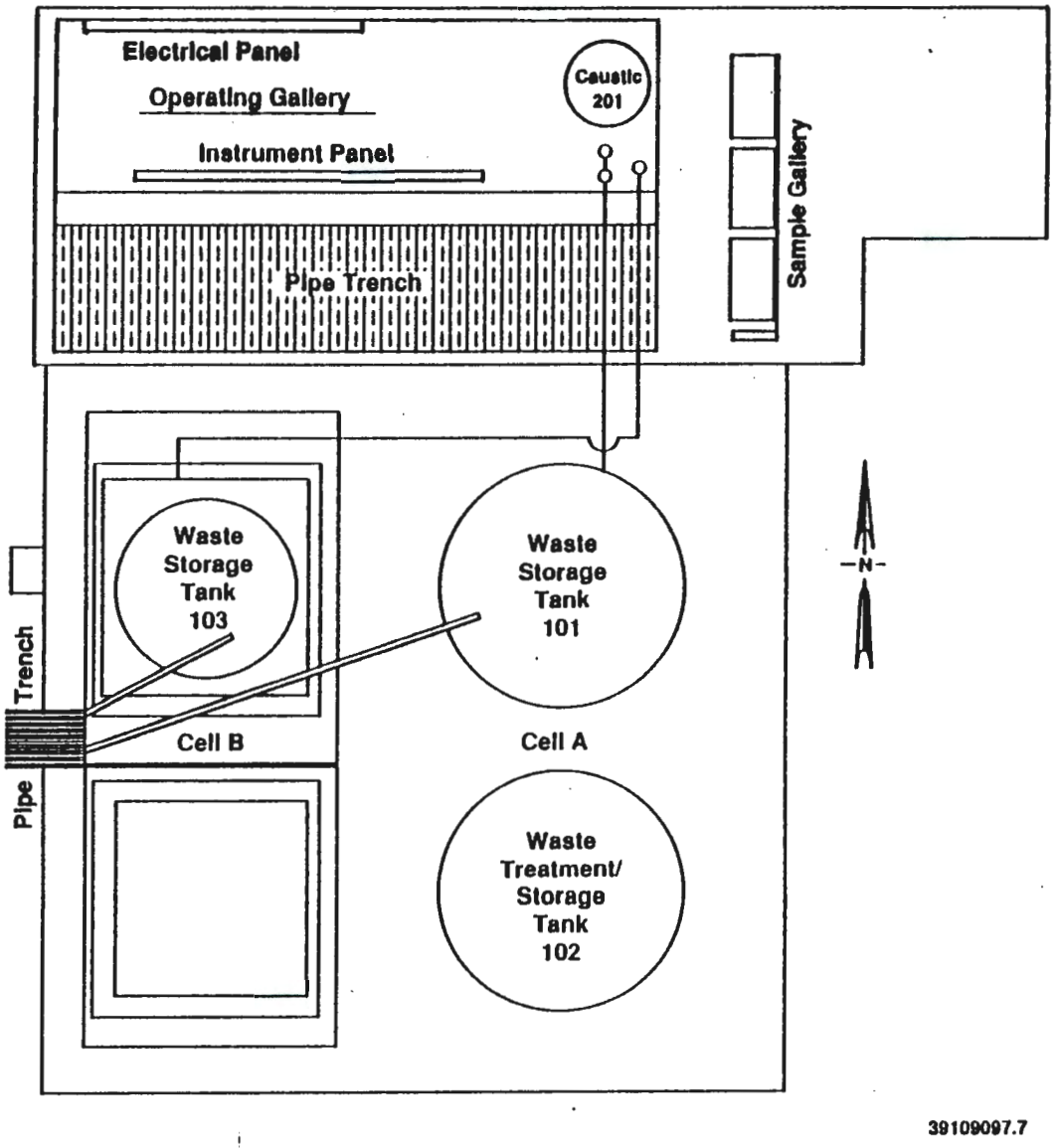
9 1 1 2 9 1 5 0 2

222-S Laboratory Complex
219-S Waste Handling Facility Tanks 101,102, and 103
Site Plan



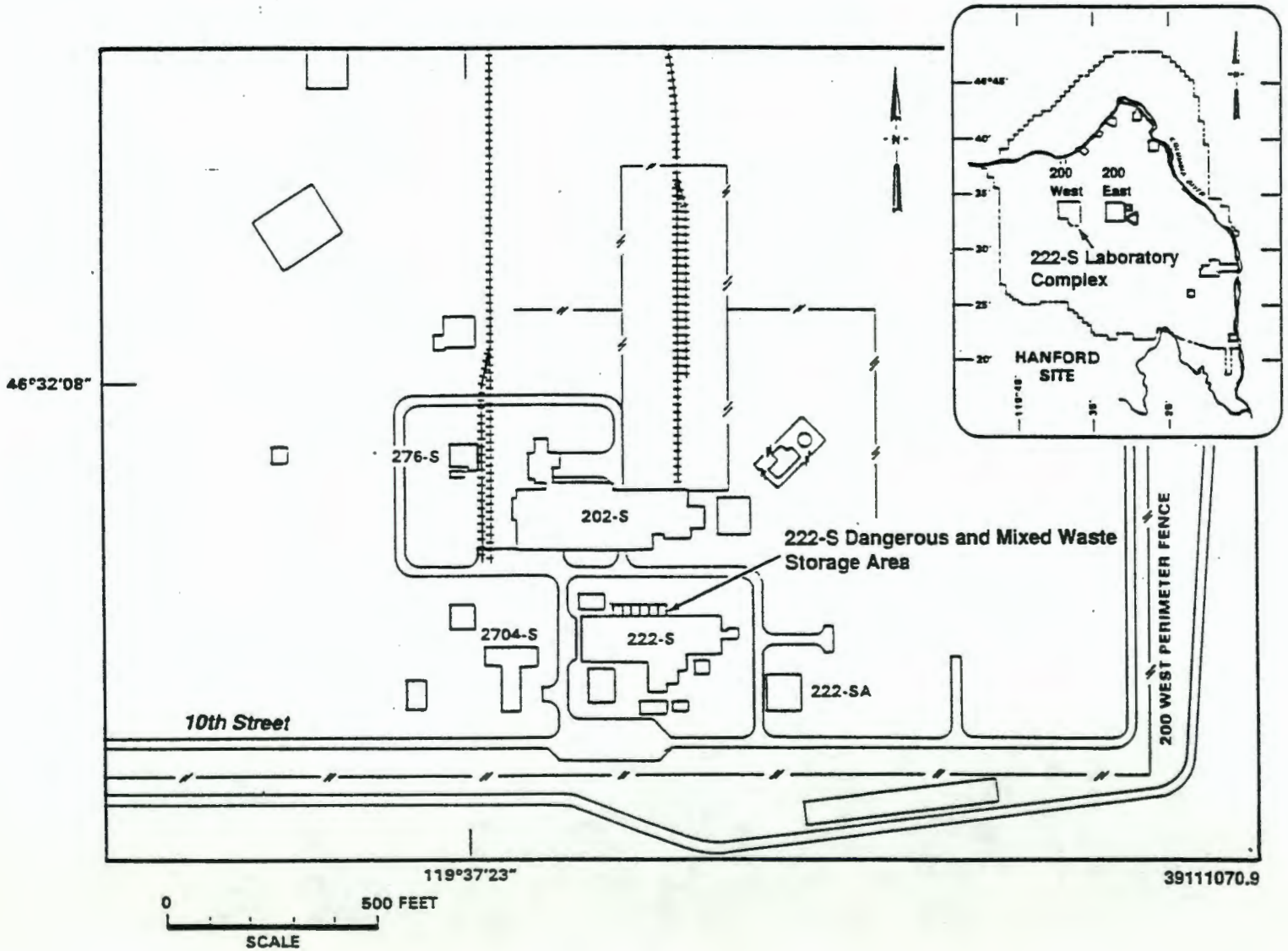
WA7890008967

222-S LABORATORY COMPLEX



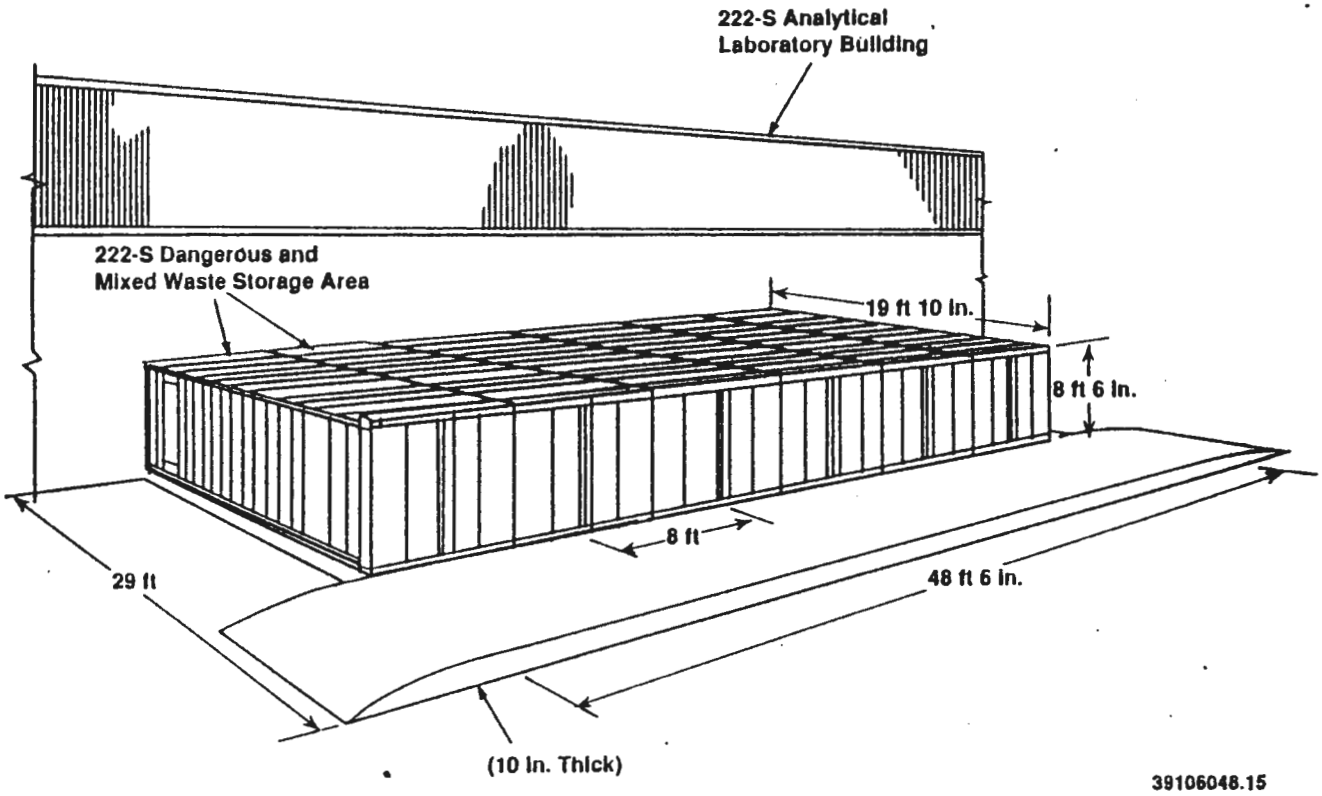
219-S WASTE HANDLING FACILITY
TANKS 101, 102, AND 103

222-S Laboratory Complex
222-S Dangerous and Mixed Waste Storage Area Site Plan



WA7890008967

222-S LABORATORY COMPLEX



222-S DANGEROUS AND MIXED WASTE STORAGE AREA

222-S LABORATORY COMPLEX

219-S Waste Handling Facility

46°32'02"
119°37'12"

91092605-2CN
(PHOTO TAKEN 1991)

9312979160 7

222-S LABORATORY COMPLEX DANGEROUS AND MIXED WASTE STORAGE AREA

Metal Storage Structures on Storage Pad

46°32'02"
119°37'12"

91022217-24CN
(PHOTO TAKEN 1991)

9 3 1 2 9 7 9 1 6 0 8

222-S LABORATORY COMPLEX DANGEROUS AND MIXED WASTE STORAGE AREA

Metal Storage Structure Internal View

46°32'02"
119°37'12"

91022217-27CN
(PHOTO TAKEN 1991)

9312916209

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

FORM 3

DANGEROUS WASTE PERMIT APPLICATION

1. 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.
0 6	0 1	5 1

FOR EXISTING FACILITIES, PROVIDE THE DATE *(mo., day, & yr.)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to 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 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. 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 2	9,500	G		7				
2	T 0 1	206	U		8				
3	S 0 1	540	G		9				
4					10				

CONTINUE ON REVERSE

9 3 1 2 9 9 1 6 1 0

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.

The 222-S Laboratory Complex consists of the following two waste management units, the 219-S Waste Handling Facility and the 222-S Dangerous and Mixed Waste Storage Area. Processes associated with these two units are described as follows.

S02,T01 - The 219-S Waste Handling Facility is located northeast of the 222-S Analytical Laboratory Building. The 219-S Waste Handling Facility contains three stainless steel tanks: 101 [4,000 gallon (15,000 liters)], 102 [4,000 gallon (15,000 liter)], and 103 [1,500 gallon (6,000 liter)] located in a belowground concrete vault (S02). Tanks 101 and 103 are used for primary and backup storage of mixed waste from the 222-S Analytical Laboratory. The mixed waste is transferred from tanks 101 and 103 to tank 102 for treatment (T01) and storage before transfer to the Double-Shell Tank (DST) System. The mixed waste is treated in tank 102 with sodium hydroxide (NaOH) to a pH greater than or equal to 12.0 and with sodium nitrite ($NaNO_2$) to a concentration of 600 parts per million. This treatment process makes the mixed waste more amenable for storage in the DST System. The maximum process design capacity of the three storage tanks is 9,500 gallons (36,000 liters). The maximum treatment process design capacity for tank 102 is 206 gallons (780 liters) per day [75,000 gallons (284,000 liters) per year].

S01 - The 222-S Dangerous and Mixed Waste Storage Area is located on the north side of the 222-S Analytical Laboratory Building. The 222-S Dangerous and Mixed Waste Storage Area consists of two metal storage structures resting on a concrete pad. The 222-S Dangerous and Mixed Waste Storage Area stores a total of thirty-six U.S. Department of Transportation-approved or equivalent 17C or 17H 55-gallon (208 liter) containers or other U.S. Department of Transportation-approved packages and overpacks of mixed waste and nonradioactive dangerous waste (S01). Each metal storage structure holds a total of 18 containers of waste. The containers are stored at the 222-S Dangerous and Mixed Waste Storage Area until transferred to the Hanford Central Waste Complex (mixed waste) or to the 616 Nonradioactive Dangerous Waste Storage Facility (nonradioactive dangerous waste) for storage. The maximum design capacity of the 222-S Dangerous and Mixed Waste Storage Area is 540 gallons (2,000 liters) [15 gallons (57 liters) per container].

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

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

I.D. NUMBER *(entered from page 1)*

W	A	7	8	9	0	0	0	8	9	6	7

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

LINE NO.	A. DANGEROUS WASTE NO. *(enter code)*	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE *(enter code)*	D. PROCESSES 1. PROCESS CODES *(enter)*				D. PROCESSES 2. PROCESS DESCRIPTION *(if a code is not entered in D(1))*
1	D001	626,000	P	S02	T01			Storage - Tank/Treatment - Tank
2	D002							
3	D003							
4	D004							
5	D005							
6	D006							
7	D007							
8	D008							
9	D009							
10	D010							
11	D011							
12	D018							
13	D019							
14	D022							
15	D028							
16	D029							
17	D030							
18	D033							
19	D034							
20	D035							
21	D036							
22	D038							
23	D039							
24	D040							
25	D041							
26	D043							

9 3 1 2 9 9 1 6 1 2

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

I.D. NUMBER *(entered from page 1)*

W	A	7	8	9	0	0	0	8	9	6	7

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

LINE NO.	A. DANGEROUS WASTE NO. *(enter code)*	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE *(enter code)*	D. PROCESSES 1. PROCESS CODES *(enter)*	D. PROCESSES 2. PROCESS DESCRIPTION *(if a code is not entered in D(1))*
1	WT01	626,000	P	S02 T01	Storage - Tank/Treatment - Tank
2	WT02				(cont)
3	WC01				
4	WC02				
5	WP01				
6	WP02				
7	F001				
8	F002				
9	F003				
10	F004				
11	F005				Included With Above
12	D001	12,000	P	S01	Storage - Container
13	D002				
14	D003				
15	D004				
16	D005				
17	D006				
18	D007				
19	D008				
20	D009				
21	D010				
22	D011				
23	D012				
24	D013				
25	D014				
26	D015				

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

I.D. NUMBER *(entered from page 1)*

W	A	7	8	9	0	0	0	8	9	6	7

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

LINE NO.	A. DANGEROUS WASTE NO. *(enter code)*	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE *(enter code)*	D. PROCESSES 1. PROCESS CODES *(enter)*	D. PROCESSES 2. PROCESS DESCRIPTION *(if a code is not entered in D(1))*
1	D016	12,000	P	S01	Storage - Container (cont)
2	D017				
3	D018				
4	D019				
5	D020				
6	D021				
7	D022				
8	D023				
9	D024				
10	D025				
11	D026				
12	D027				
13	D028				
14	D029				
15	D030				
16	D031				
17	D032				
18	D033				
19	D034				
20	D035				
21	D036				
22	D037				
23	D038				
24	WC01				
25	WC02				
26	W001				

9 3 1 2 9 - 9 1 6 1 4

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

I.D. NUMBER *(entered from page 1)*

W	A	7	8	9	0	0	0	8	9	6	7

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

LINE NO.	A. DANGEROUS WASTE NO. *(enter code)*	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE *(enter code)*	D. PROCESSES 1. PROCESS CODES *(enter)*	D. PROCESSES 2. PROCESS DESCRIPTION *(If a code is not entered in D(1))*
1	WP01	12,000	P	S01	Storage - Container (cont)
2	WP02				
3	WT01				
4	WT02				
5	F001				
6	F002				
7	F003				
8	F004				
9	F005				
10	F027				Included With Above
11					
12					
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V. DESCRIPTION OF DANGEROUS WASTES (continued)

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

Mixed waste from the 222-S Analytical Laboratory Building flows by gravity to the 219-S Waste Handling Facility for treatment of the mixed waste before transfer to the Double-Shell Tank System. Some mixed waste may require chemical treatment within the 222-S Laboratory Complex before introducing the mixed waste into the 219-S Waste Handling Facility. The mixed waste is considered corrosive (D002) because of the presence of nitric acid prior to treatment and sodium hydroxide following treatment. Treated mixed waste transferred to the Double-Shell Tank System consists of characteristic waste (D001, D002, and D003), toxic constituents (D004 through D043), state only waste (WC01, WC02, WP01, WP02, WT01, and WT02), and spent halogenated and nonhalogenated solvent waste (F001, F002, F003, F004, and F005). Before transfer, sodium nitrite is added to the mixed waste for corrosion protection of the Double-Shell Tank System (WT02).

The U.S. Department of Transportation-approved or equivalent 17C or 17H 55-gallon (208-liter) containers or other U.S. Department of Transportation-approved packages and overpacks of waste are stored in two metal storage structures located on a concrete pad before shipment to the Hanford Central Waste Complex (mixed waste) and the 616 Nonradioactive Dangerous Waste Storage Facility (nonradioactive dangerous waste). The contents of the containers are identified through process knowledge and sample results. The containers hold characteristic waste (D001, D002, and D003), toxic constituents (D004 through D038), spent halogenated and nonhalogenated solvent waste (F001, F002, F003, F004, and F005), nonspecific source waste (F027), discarded polychlorinated biphenyls (W001), and state-only waste (WC01, WC02, WP01, WP02, WT01, and WT02).

/. 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 the 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
John D. Wagoner, Manager U.S. Department of Energy Richland Field Office	for [signature]	4/13/93

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

9312916.16

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.

for

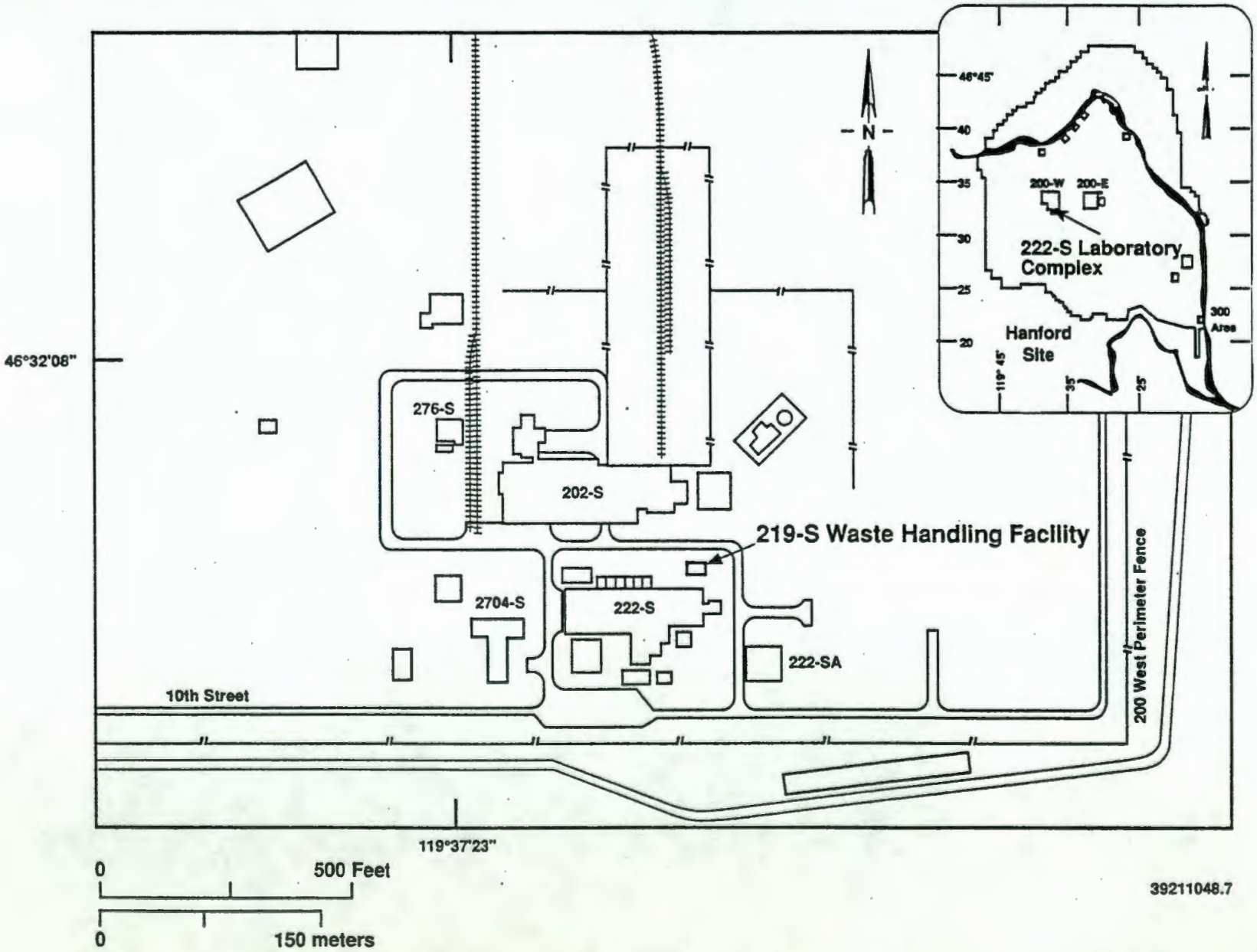
Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
Richland Field Office

4/13/93
Date

Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

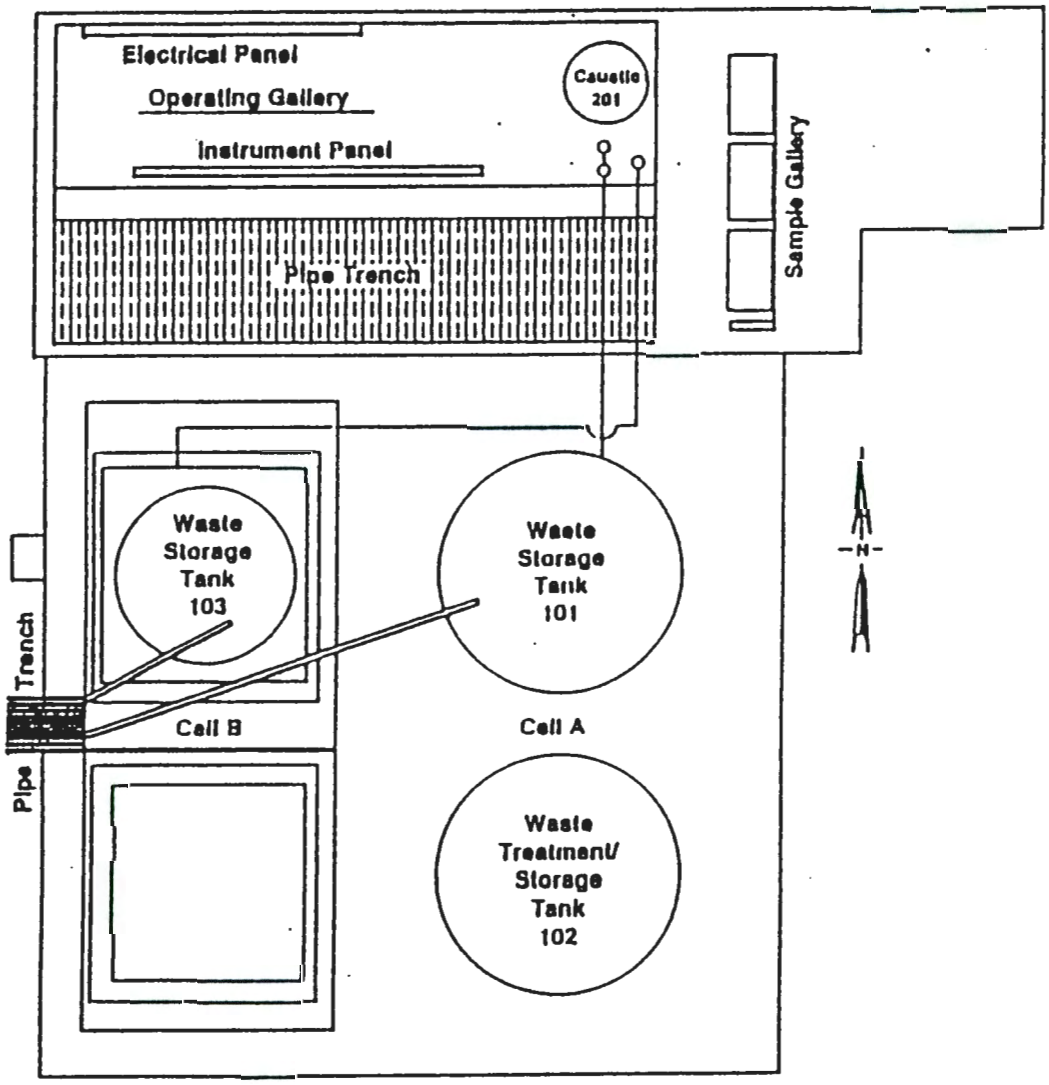
3/12/93
Date

222-S Laboratory Complex
219-S Waste Handling Facility Tanks 101, 102, and 103
Site Plan



WA7890008967

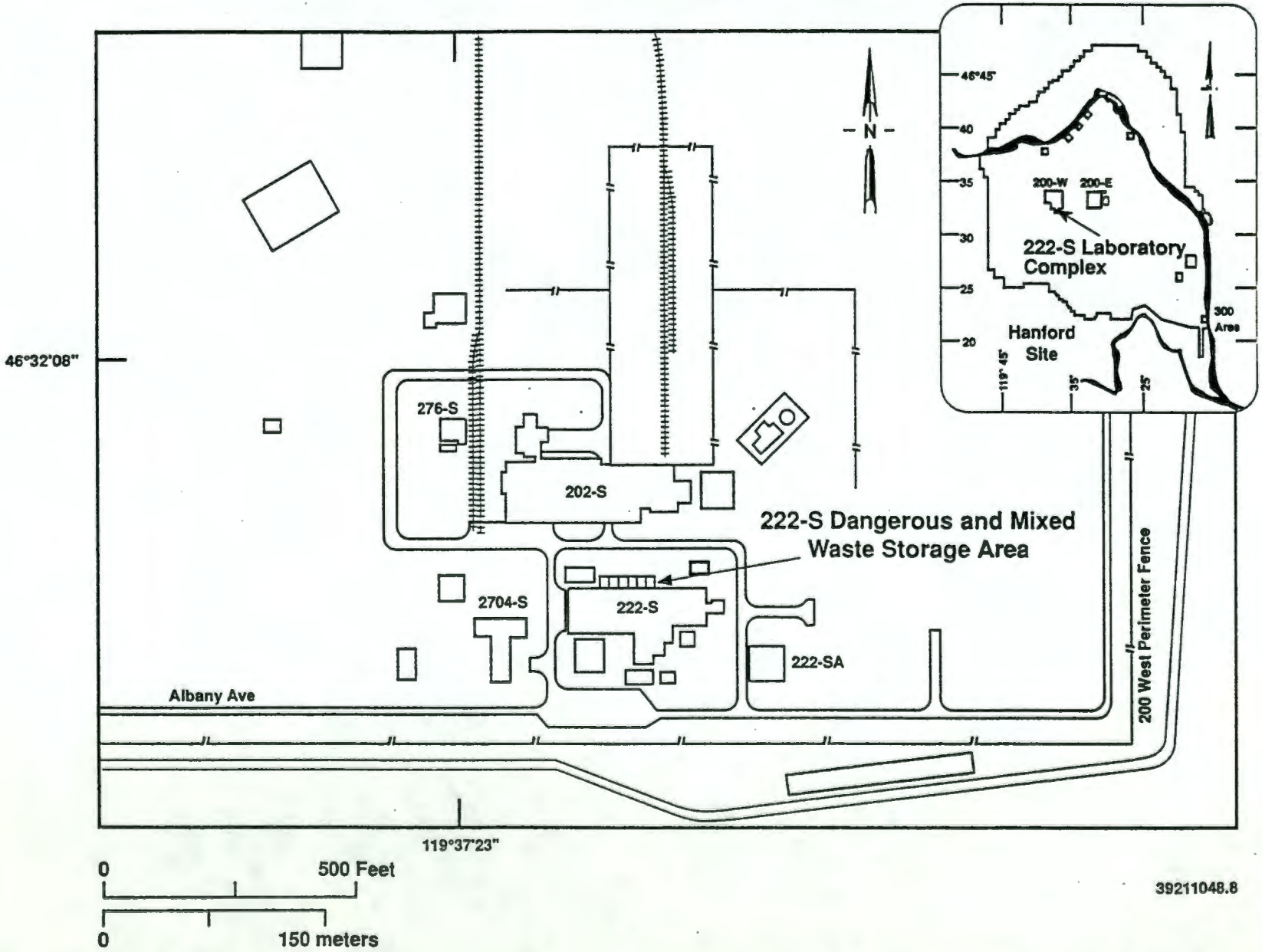
222-S LABORATORY COMPLEX



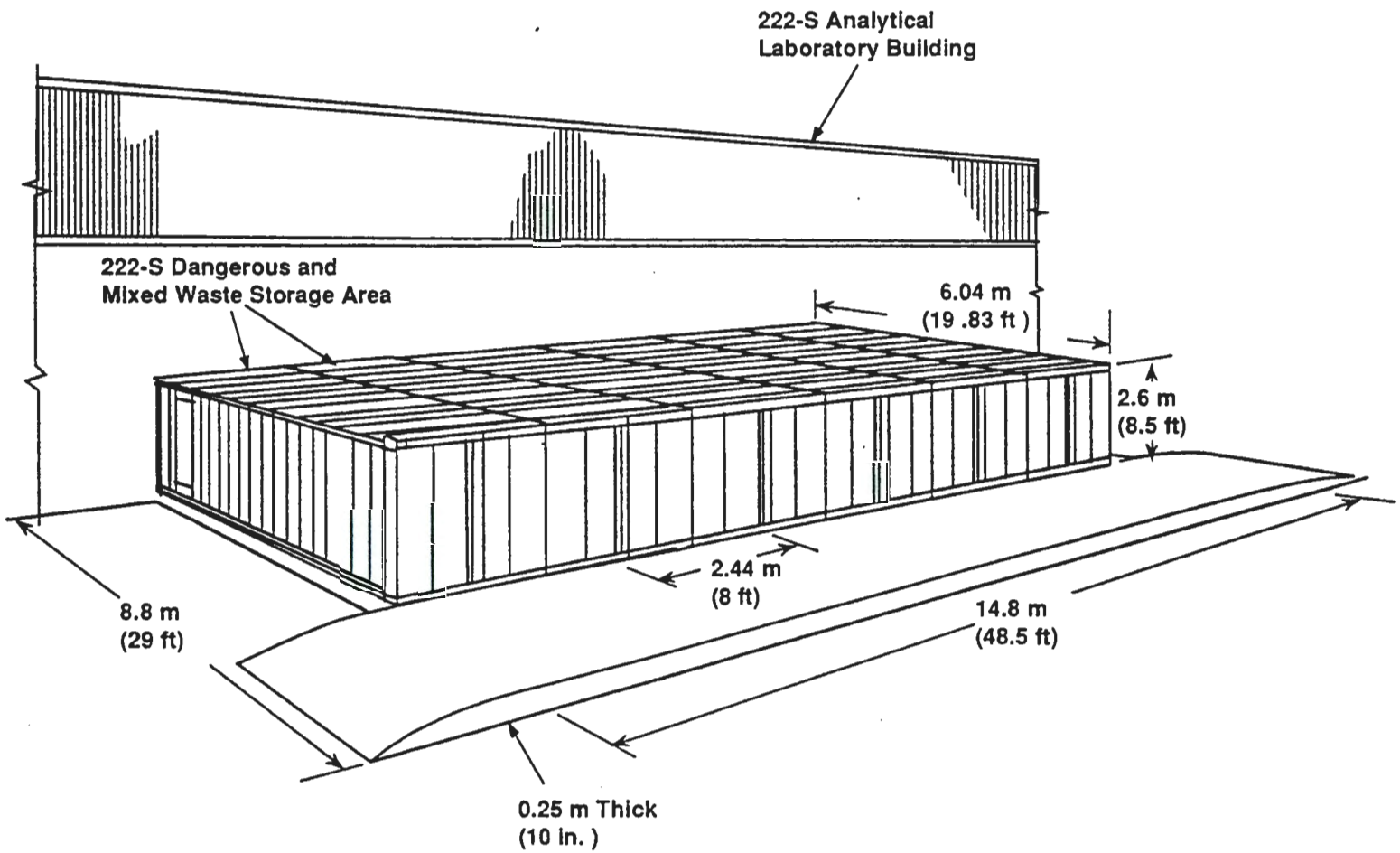
39109097.7

219-S WASTE HANDLING FACILITY
TANKS 101, 102, AND 103

222-S Laboratory Complex
222-S Dangerous and Mixed Waste Storage Area
Site Plan



222-S Laboratory Complex



222-S Dangerous and Mixed Waste Storage Area

39106048.15

222-S LABORATORY COMPLEX

219-S Waste Handling Facility

46°32'02"
119°37'12"

91092605-2CN
(PHOTO TAKEN 1991)

9 3 1 2 9 7 9 1 6 2 2

222-S LABORATORY COMPLEX DANGEROUS AND MIXED WASTE STORAGE AREA

Metal Storage Structures on Storage Pad

46°32'02"
119°37'12"

91022217-24CN
(PHOTO TAKEN 1991)

9 3 1 2 9 3 9 1 6 2 3

222-S LABORATORY COMPLEX DANGEROUS AND MIXED WASTE STORAGE AREA

Metal Storage Structure Internal View

46°32'02"
119°37'12"

91022217-27CN
(PHOTO TAKEN 1991)

9 3 1 2 9 3 9 1 6 2 4

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

FORM 3

DANGEROUS WASTE PERMIT APPLICATION

1. 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.
0 2	0 2	8 2

FOR EXISTING FACILITIES, PROVIDE THE DATE *(mo., day, & yr.)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to 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 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. 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	T 0 4	50,000	U		7				
2					8				
3					9				
4					10				

CONTINUE ON REVERSE

9 3 1 2 9 9 1 6 2 5

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.

T04

The 204-AR Waste Unloading Station receives liquid mixed waste transported in 20,000-gallon (76,000-liter) capacity railroad tank cars or in 5,000 gallon (18,900 liter) tank trucks. Mixed waste is generated from decontamination and regeneration operations in the 100 and 200 Areas; from recovery, fuels fabrication, and laboratory operations in the 200 and 300 Areas; and from decontamination operations in the 400 Area. The liquid mixed waste is transferred to the Double-Shell Tank (DST) System. The waste is chemically adjusted in-line during pumpout to meet DST System corrosion specifications. The in-line treatment design capacity (under item III.B.1.) of 50,000 gallons (189,000 liters) per day includes two railroad tank cars at 20,000 gallons (76,000 liters) each and an additional 10,000 gallons (38,000 liters) of liquid waste generated as a result of flushing the system.

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

9 3 1 2 9 9 1 6 2 6

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

I.D. NUMBER *(entered from page 1)*: 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	15,600,000	P	T04	Treatment-Other-Chemical Treatment
2	D002				
3	D003				
4	D004				
5	D005				
6	D006				
7	D007				
8	D008				
9	D009				
10	D010				
11	D011				
12	D018				
13	D019				
14	D022				
15	D028				
16	D029				
17	D030				
18	D033				
19	D034				
20	D035				
21	D036				
22	D038				
23	D039				
24	D040				
25	D041				
26	D043				

9 3 1 2 9 9 1 6 2 7

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

I.D. NUMBER *(entered from page 1)*

W	A	7	8	9	0	0	0	8	9	6	7

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

LINE NO.	A. DANGEROUS WASTE NO. *(enter code)*	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE *(enter code)*	D. PROCESSES 1. PROCESS CODES *(enter)*	D. PROCESSES 2. PROCESS DESCRIPTION *(If a code is not entered in D(1))*
1	WT01	15,600,000	P	T04	Treatment-Other-Chemical Treatment
2	WT02				
3	WC01				
4	WC02				
5	WP01				
6	WP02				
7	F001				
8	F002				
9	F003				
10	F004				
11	F005				Included With Above
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

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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 204-AR Waste Unloading Station is used for the treatment of liquid mixed waste that might exhibit the characteristic of corrosivity (D002, pH greater than or equal to 12.5) following the addition of caustic chemicals (sodium hydroxide and sodium nitrite). The waste is treated in-line at the 204-AR Waste Unloading Station to make the waste amenable for storage in the DST System.

The waste identified in Section IV.A has the potential for being transported to the 204-AR Waste Unloading Station, treated, and transferred to the DST System. The mixed waste consists of listed waste, characteristic waste, toxic constituents, and state-only waste (extremely hazardous and dangerous 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 the 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
John D. Wagoner, Manager U.S. Department of Energy Richland Field Office	John D. Wagoner	2/26/93

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		

9312291629

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 D. Wagoner

Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
Richland Field Office

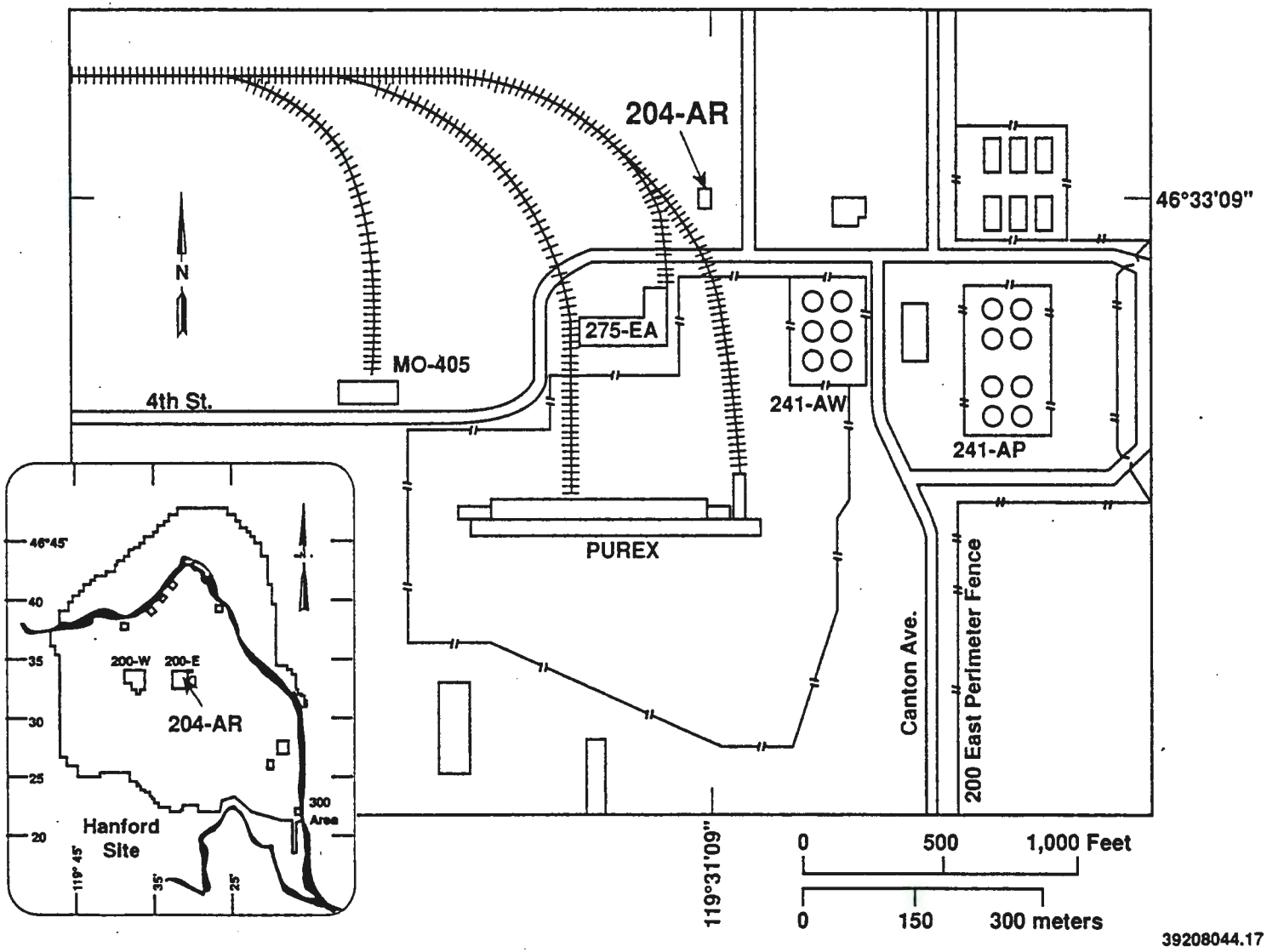
2/26/93
Date

Thomas M. Anderson

Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

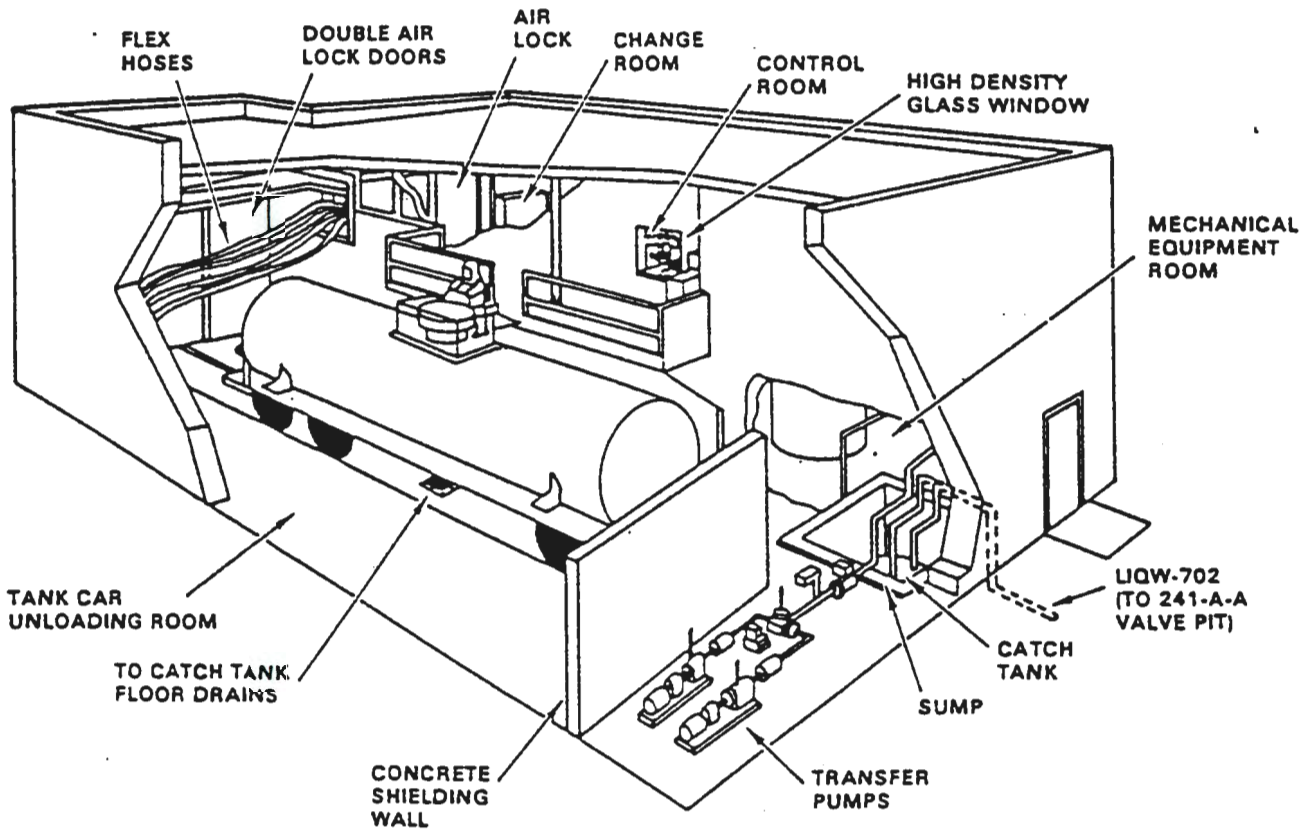
2/4/93
Date

204-AR Building Waste Unloading Station
Site Plan



39208044.17

204-AR WASTE UNLOADING STATION
CUTAWAY VIEW



204-AR WASTE UNLOADING STATION

46°33'09"
119°31'09"

8706421-18CN
(PHOTO TAKEN 1987)

9 3 1 2 9 3 9 1 6 3 3

204-AR WASTE UNLOADING STATION - INTERNAL VIEW

TYPICAL RAILROAD TANK CAR UNLOADING

46°33'09"
119°31'09"

8706421-16CN
(PHOTO TAKEN 1987)

9 3 1 2 9 3 9 1 6 3 4

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

FORM **3**

DANGEROUS WASTE PERMIT APPLICATION

1. 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. 0 1 | DAY 1 5 | YR. 5 6 — FOR EXISTING FACILITIES, PROVIDE THE DATE *(mo., day, & yr.)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to 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 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. 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		6				
X-2	T 0 3	20	E		6				
1	T 0 1	103,600	U		7				
2	S 0 2	21,000	G		8				
3	S 0 5	565	Y		9				
4					10				

9 3 1 2 9 9 1 6 3 5

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.

The following are treatment and storage processes for the PUREX Plant, located in the 200 East Area.

T01 Tank E5 [5,000 gallon (19,000 liter) design capacity] - Mixed waste is treated with NaOH and $NaNO_2$ before sending the waste to the Double-Shell Tank (DST) System.

The concentrator [E-F11; 2,600 gallon (9,800 liter) design capacity] - Ammoniacal mixed waste was processed in the concentrator with the ammonia distillate going to the 216-A-36B Crib prior to September 1987; currently, the ammoniacal waste is treated with NaOH and $NaNO_2$ in tank G7 [15,000 gallon (57,000 liter) design capacity] and sent to the DST System; in a future process, the ammoniacal waste will be acidified with HNO_3 in a tank [approximately 1,100 gallon (4,100 liter) capacity], treated with $NaNO_2$ to destroy ammonia, and concentrated in E-F11. The distillate will be combined with another condensate waste stream, which is neutralized with KOH before being discharged. The bottoms concentrate in the E-F11 concentrator is treated with NaOH and $NaNO_2$ in tank F18 [5,000 gallon (19,000 liter) design capacity] before going to the DST System. On occasion, the E-F11 concentrator may be used to evaporate non-dangerous waste water.

Tanks F15 and F16 [each tank has a 5,000 gallon (19,000 liter) design capacity] - The mixed waste is denitrated using sugar, and treated with NaOH and $NaNO_2$ before going to the DST System.

T01, S02 Tank F18 [5,000 gallon (19,000 liter) design capacity] and tanks U3 and U4 [each with a 8,000 gallon (30,000 liter) design capacity] - The mixed waste is collected from all sections of the PUREX Plant (E-F11 bottoms, sumps, sinks, drains, overflows, laboratory waste, etc.,) and treated with NaOH and $NaNO_2$ before going to the DST system.

S05 The designation S05 (storage miscellaneous) has been used to indicate that the solid mixed waste stored on the canyon deck is now considered to be stored in a containment building subject to the requirements of 40 CFR 265, Subpart DD rather than a waste pile subject to the requirements of 40 CFR 265, Subpart L. The solid waste consists of radioactive contaminated discarded canyon process equipment and jumpers (or isolated components thereof) containing lead and/or cadmium used as weights, counterweights, or radiation shielding. The process design capacity of the storage area on the canyon deck is 565 cubic yards.

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 6 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

9 3 1 2 9 9 1 6 3 6

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

I.D. NUMBER *(entered from page 1)*: 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	66,000,000*	P	T01 S02	Treatment - Chemical/
2	WT02				Storage - Tank
3	WC01				
4	WC02				
5	WP01				
6	WP02				
7	D001				
8	D002				
9	D003				
10	D004				
11	D005				
12	D006				
13	D007				
14	D008				
15	D009				
16	D010				
17	D011				Included with above
18	WT01	5,300*	P	S05	Storage - Containment Building
19	D006				
20	D008				Included with above
21					
22					
23					
24					
25					
26					

* The estimated annual quantities of waste listed above represent the maximum quantities of solid mixed waste currently treated and stored at the PUREX Plant. Future operations might necessitate an increase in excess of these estimates and a permit application revision could be pursued as required by dangerous waste regulations.

9 3 1 2 9 9 1 6 3 7

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.

Tank E5 contains (1) decladding waste consisting of NH_4F, $(NH_4)_2ZrF_6$, $(NH_4)_2UF_6$, and NH_4NO_3; (2) metathesis solutions consisting of KOH and KF; or (3) metathesis rinse and miscellaneous flushes with similar chemical makeups. All streams are treated with NaOH to a pH greater than 12 consisting mainly of NaF, KF, UO_2, ZrO_2, NH_3, NH_4OH, and $NaNO_3$.

The concentrator (E-F11) bottoms containing NH_4NO_3 and NH_4OH are transferred to tank F18 and then treated with NaOH and $NaNO_2$.

Tanks F15 and F16 contain high-level acid waste with HNO_3 and $Al(NO_3)_3$, that are treated with sugar, NaOH, and $NaNO_2$.

Tank F18 and tanks U3 and U4 receive miscellaneous waste with a constantly changing composition consisting mainly of water and HNO_3. All waste is treated with NaOH and $NaNO_2$ to a pH greater than 12.

The PUREX Plant containment building holds discarded equipment containing elemental lead and/or elemental cadmium that is regulated as a solid waste because of the toxicity of the lead and/or cadmium.

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 the 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
John D. Wagoner, Manager U.S. Department of Energy Richland Field Office	John D. Wagoner	11/24/92

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

9312916338

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 D. Wagoner — 11/24/92

Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
Richland Field Office

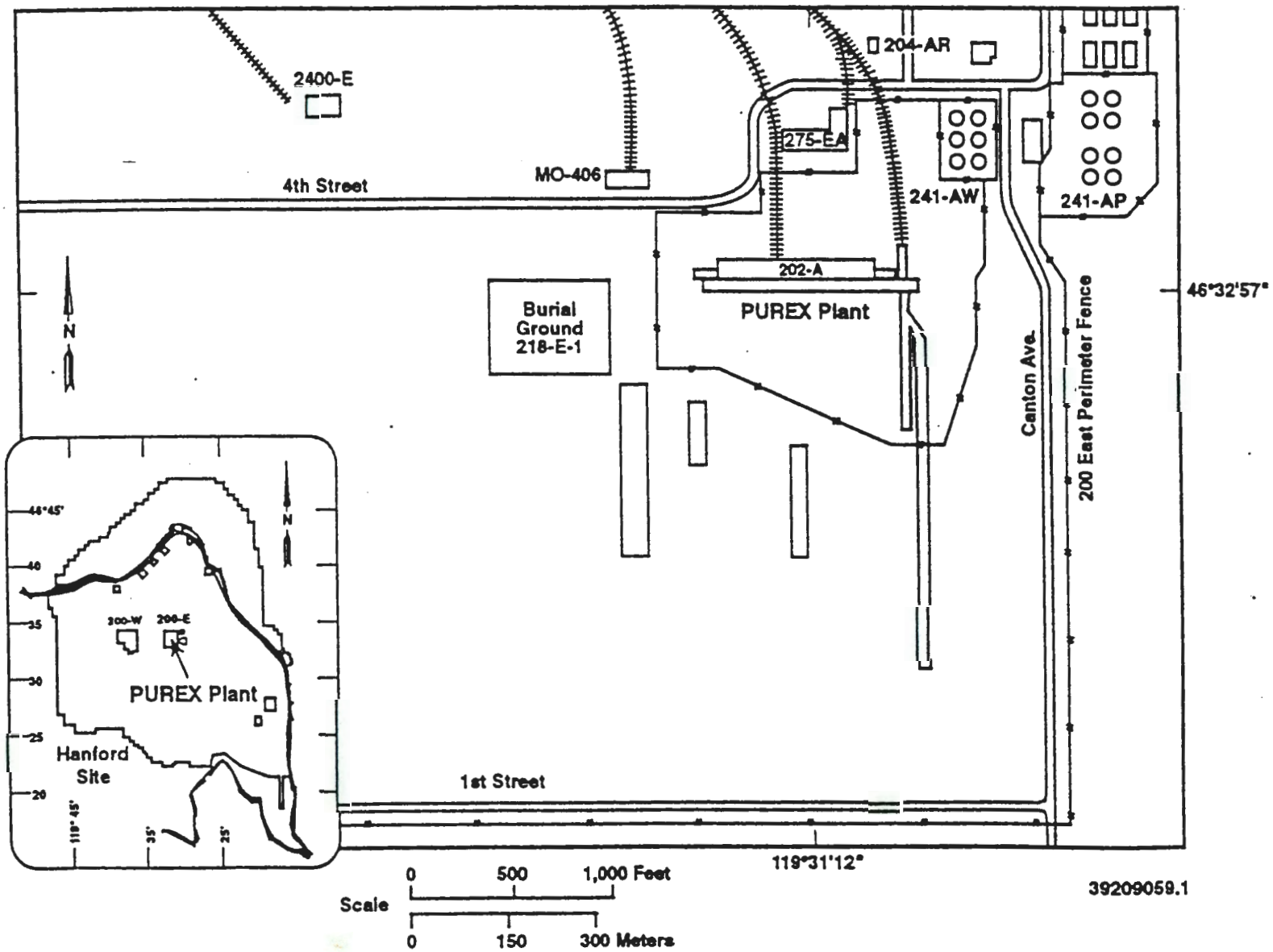
Date

Thomas M. Anderson — 11/10/92

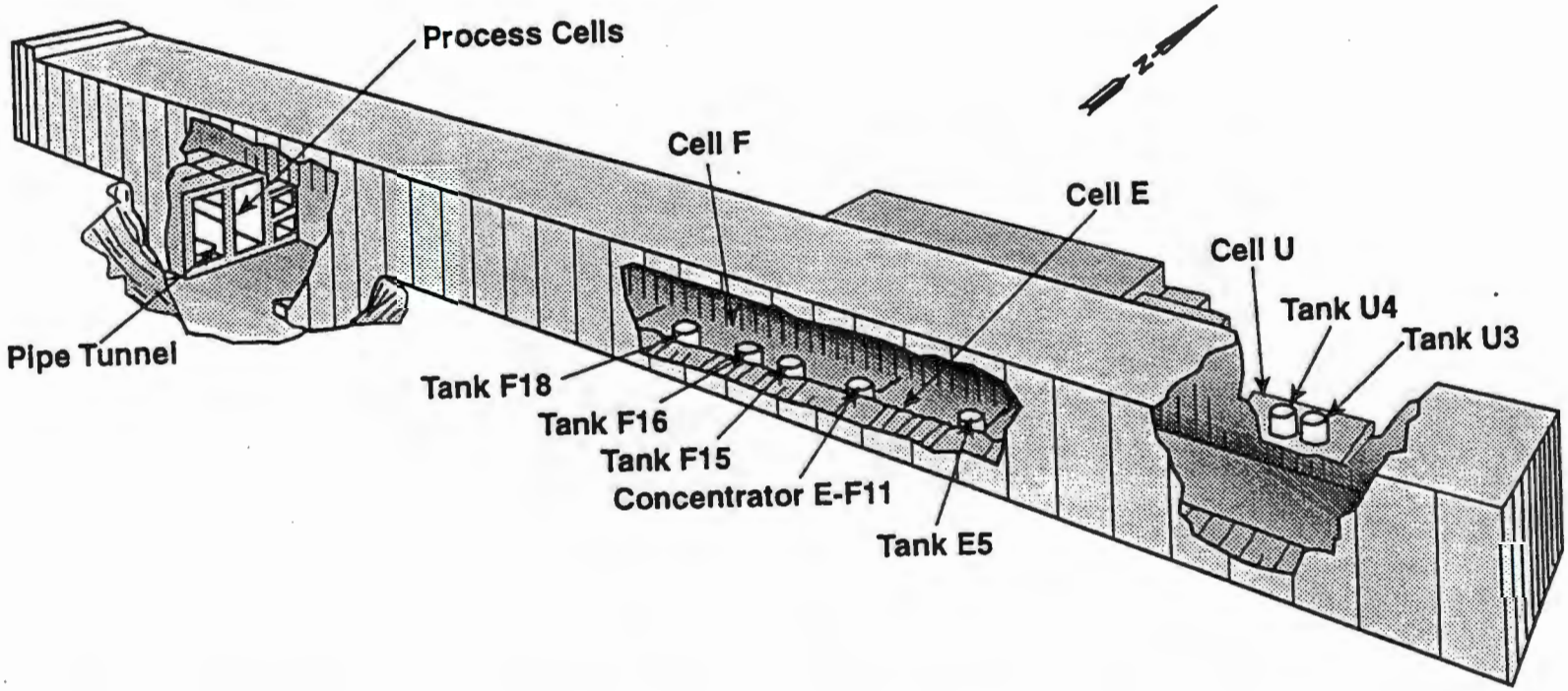
Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

Date

PUREX Plant
Site Plan

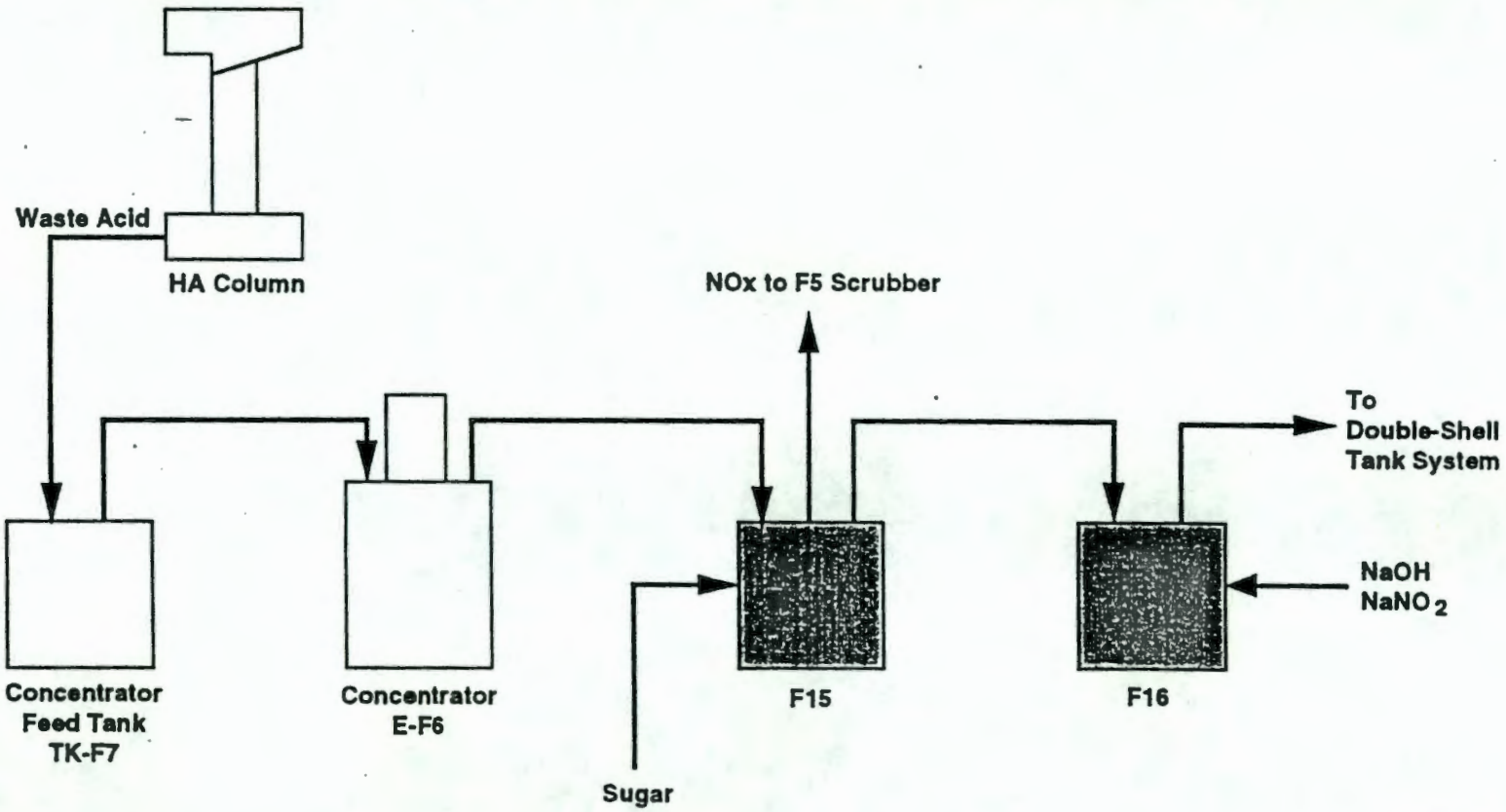


PUREX Plant Cutaway View (202-A Building)



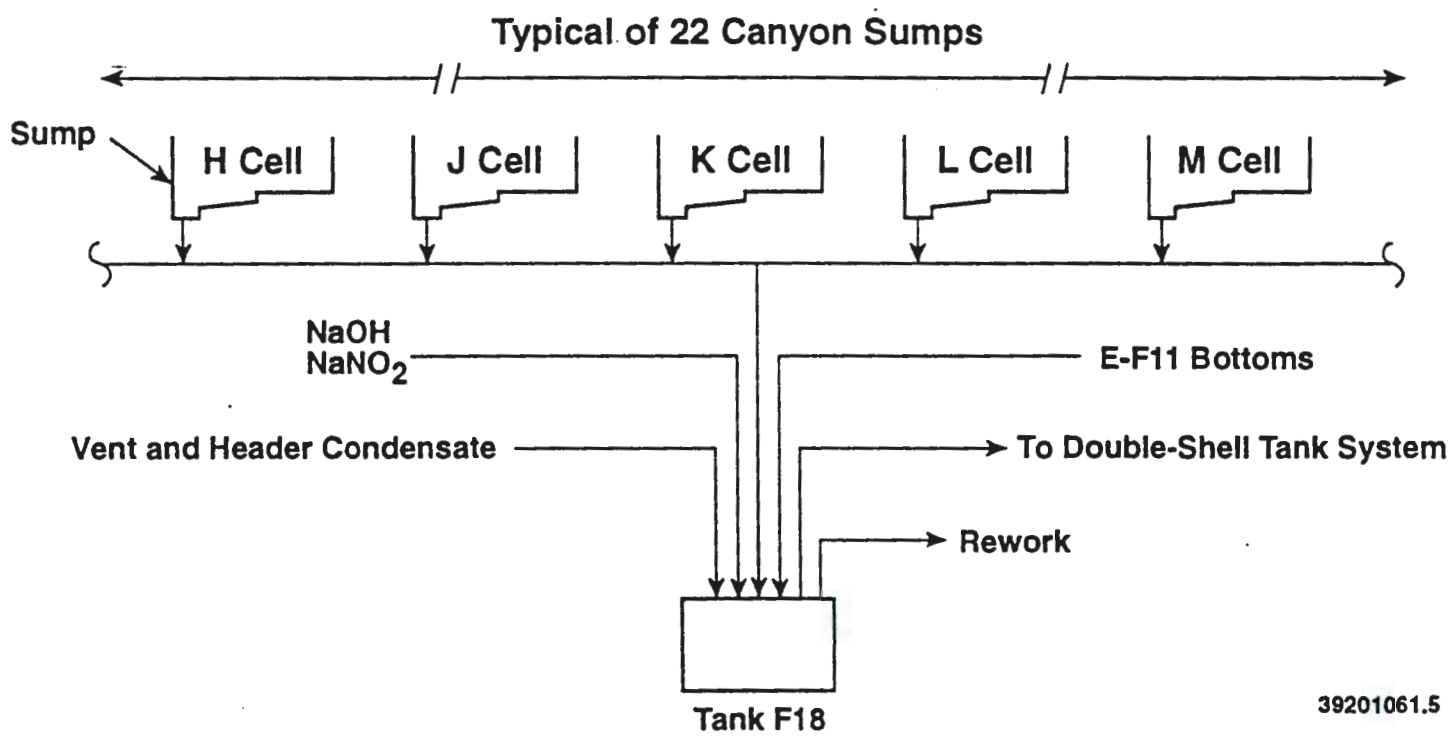
39201061.7

Tanks F15 and F16 Waste Stream Flow Diagram

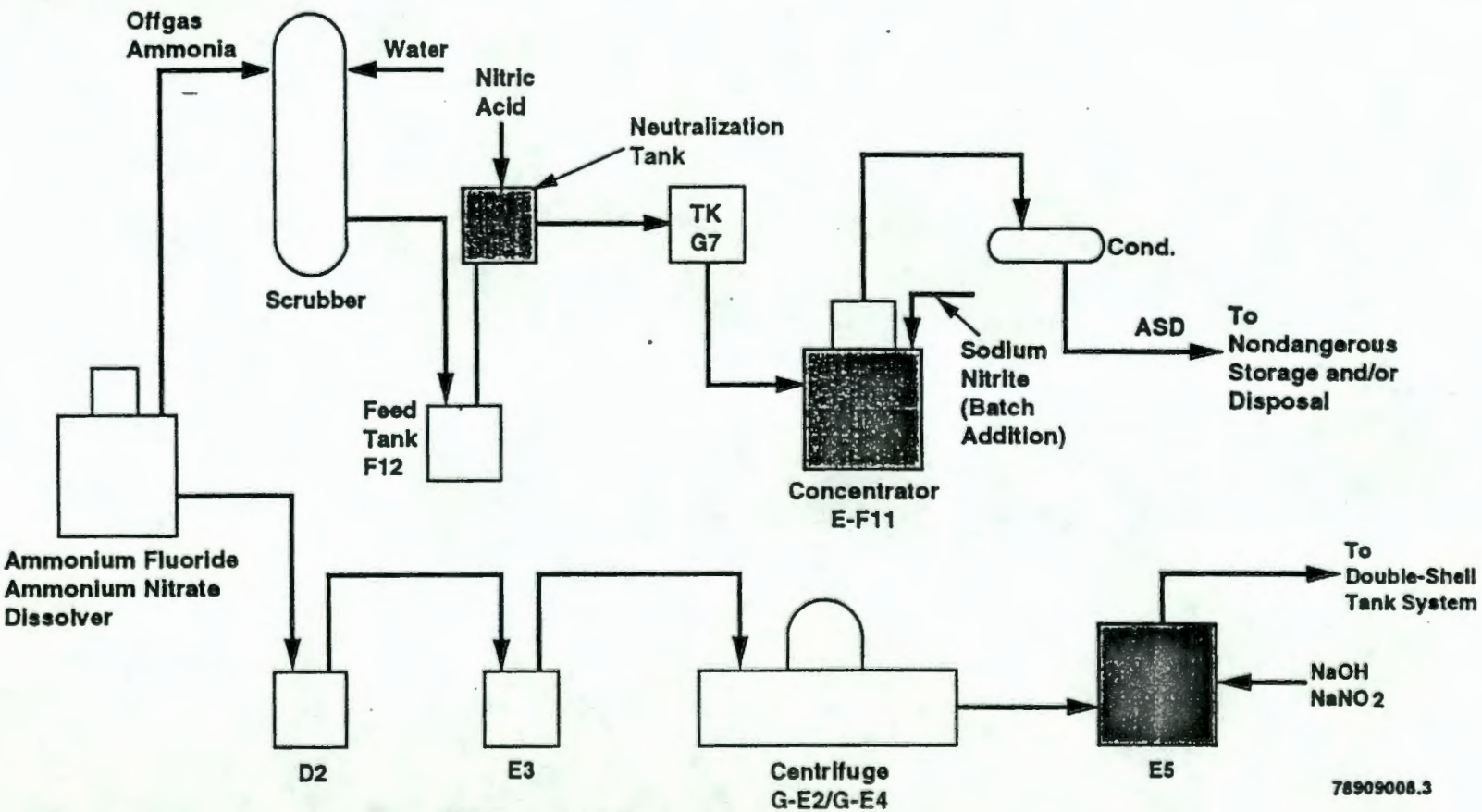


78909008.2

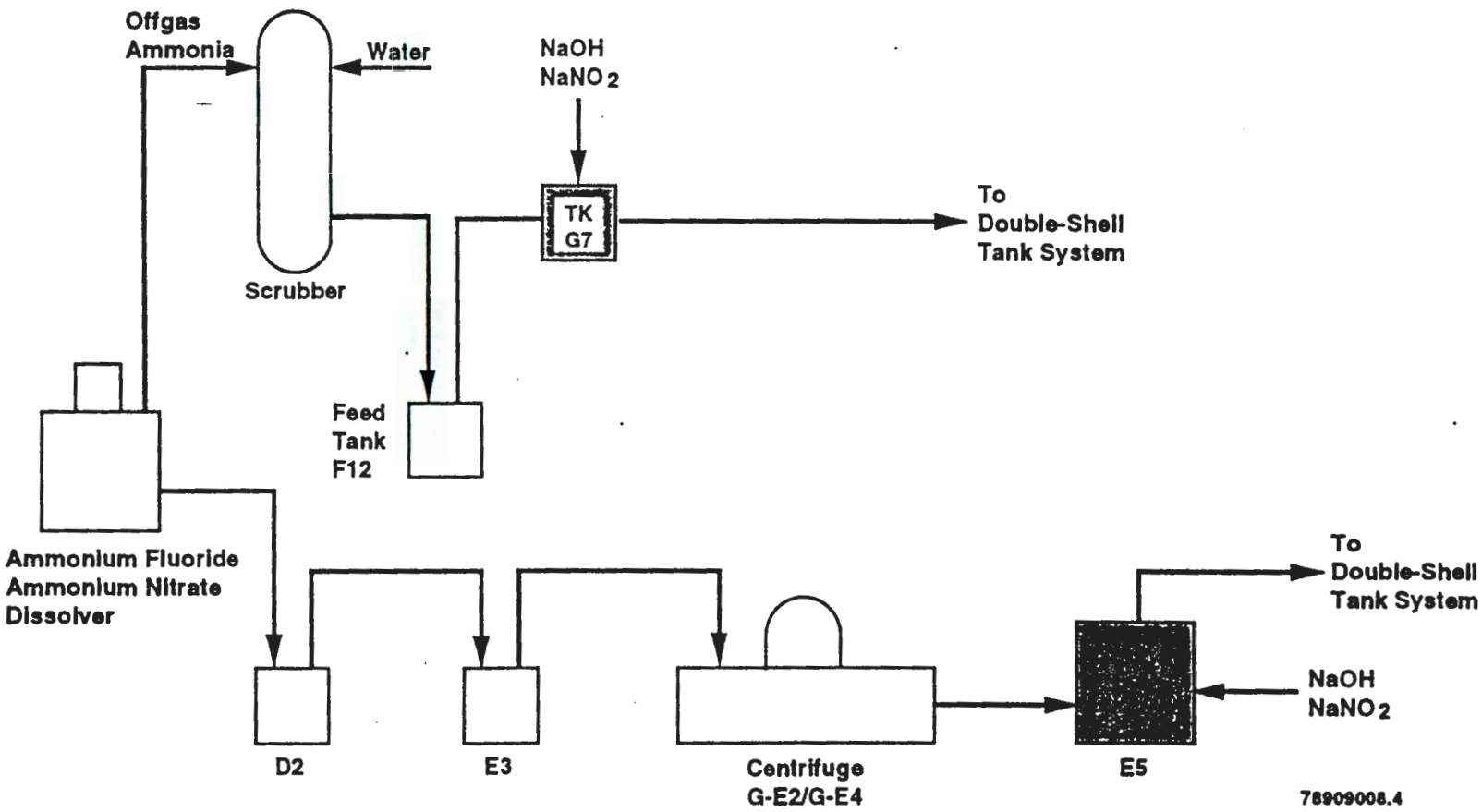
TANK F18 Waste Stream Flow Diagram



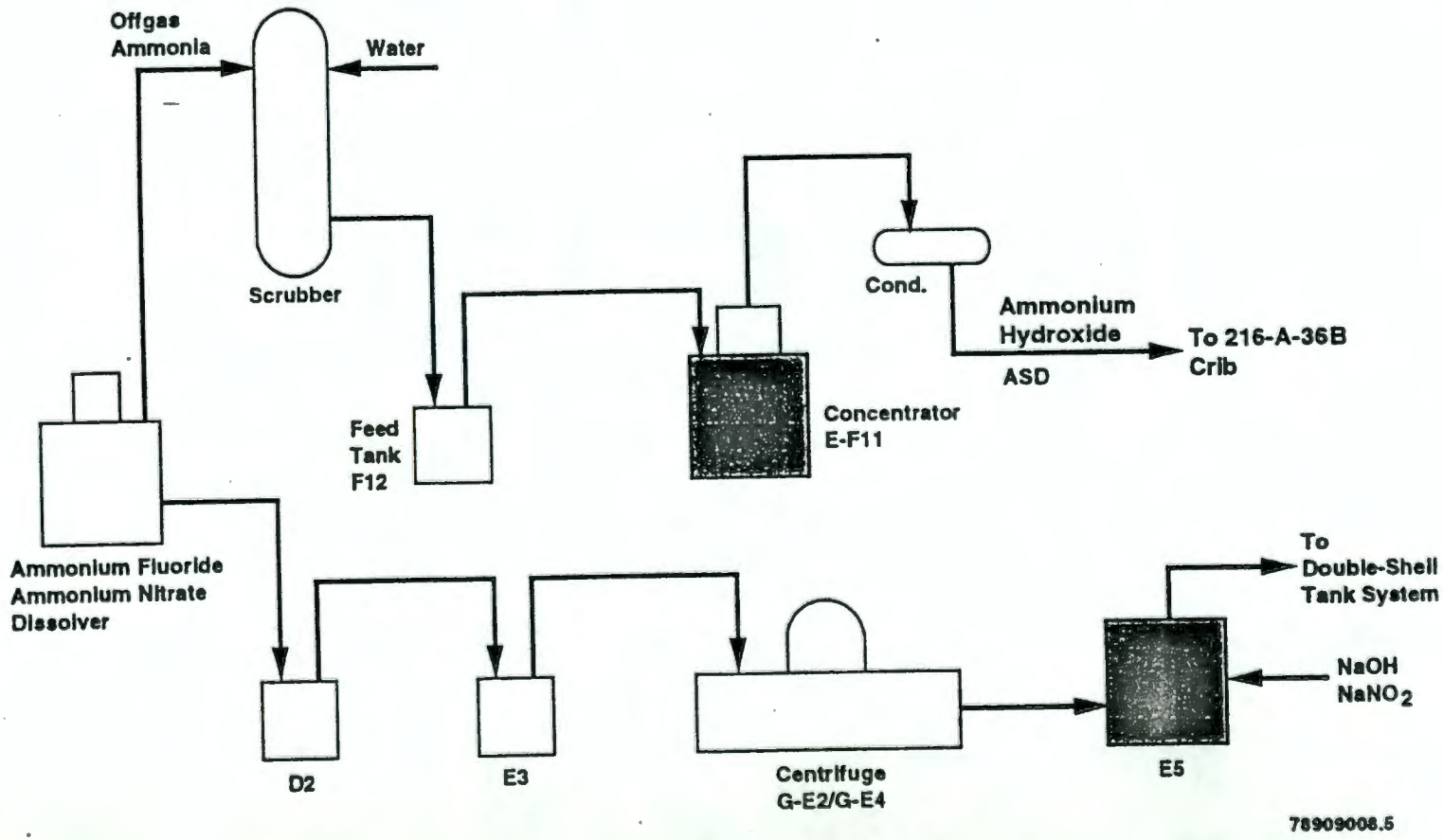
E-F11 and E5 Waste Stream Flow Diagrams
Proposed Process



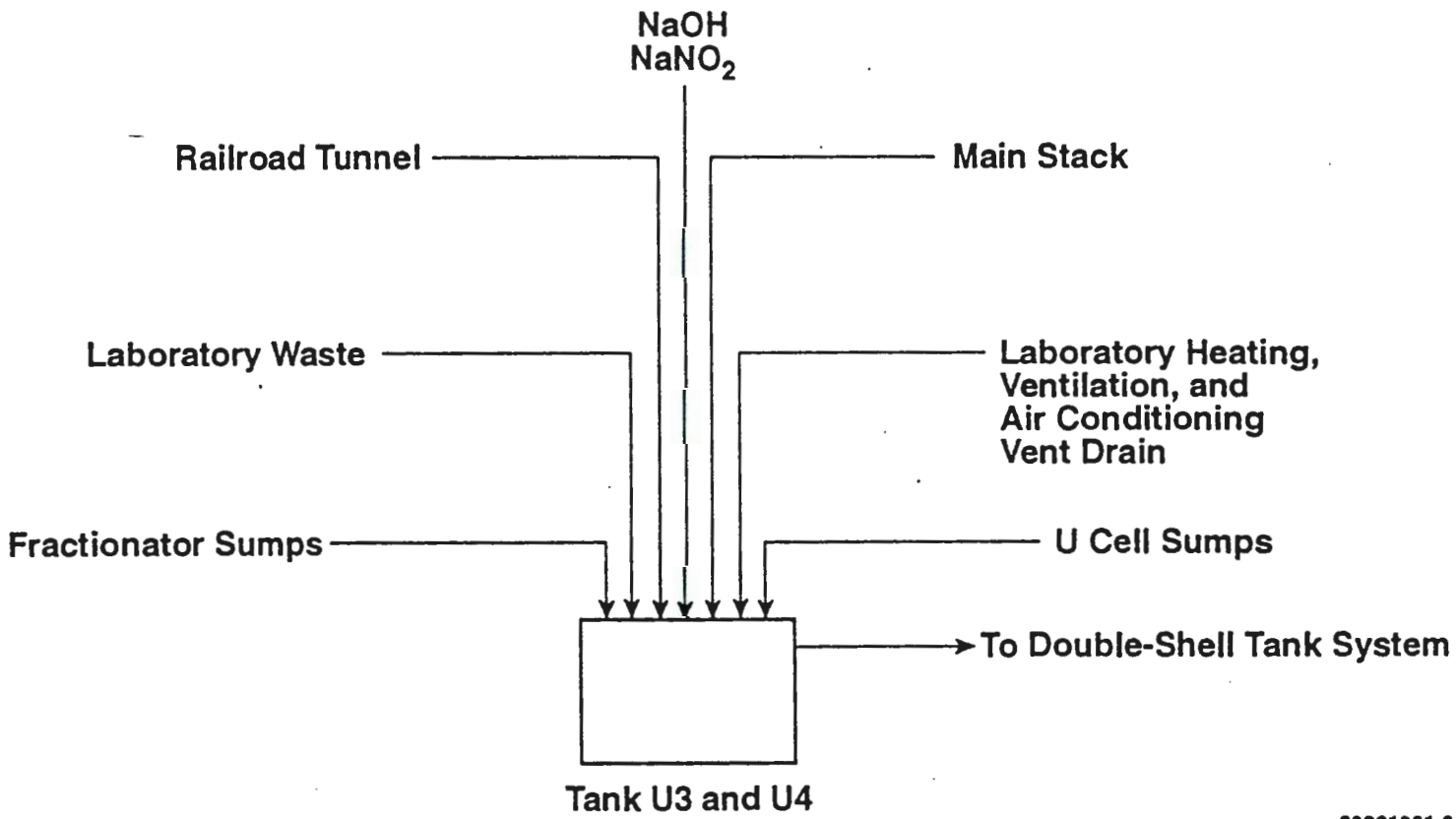
E-F11 and E5 Waste Stream Flow Diagrams
Present Process



E-F11 and E5 Waste Stream Flow Diagrams
Past Process - Prior to August 1987



Tanks U3 and U4 Waste Stream Flow Diagram



39201061.6

PUREX PLANT (SOUTH SIDE)

46°32'57"
119°31'12"

8706243-4CN
(PHOTO TAKEN 1987)

9 3 1 2 9 3 9 1 6 4 8

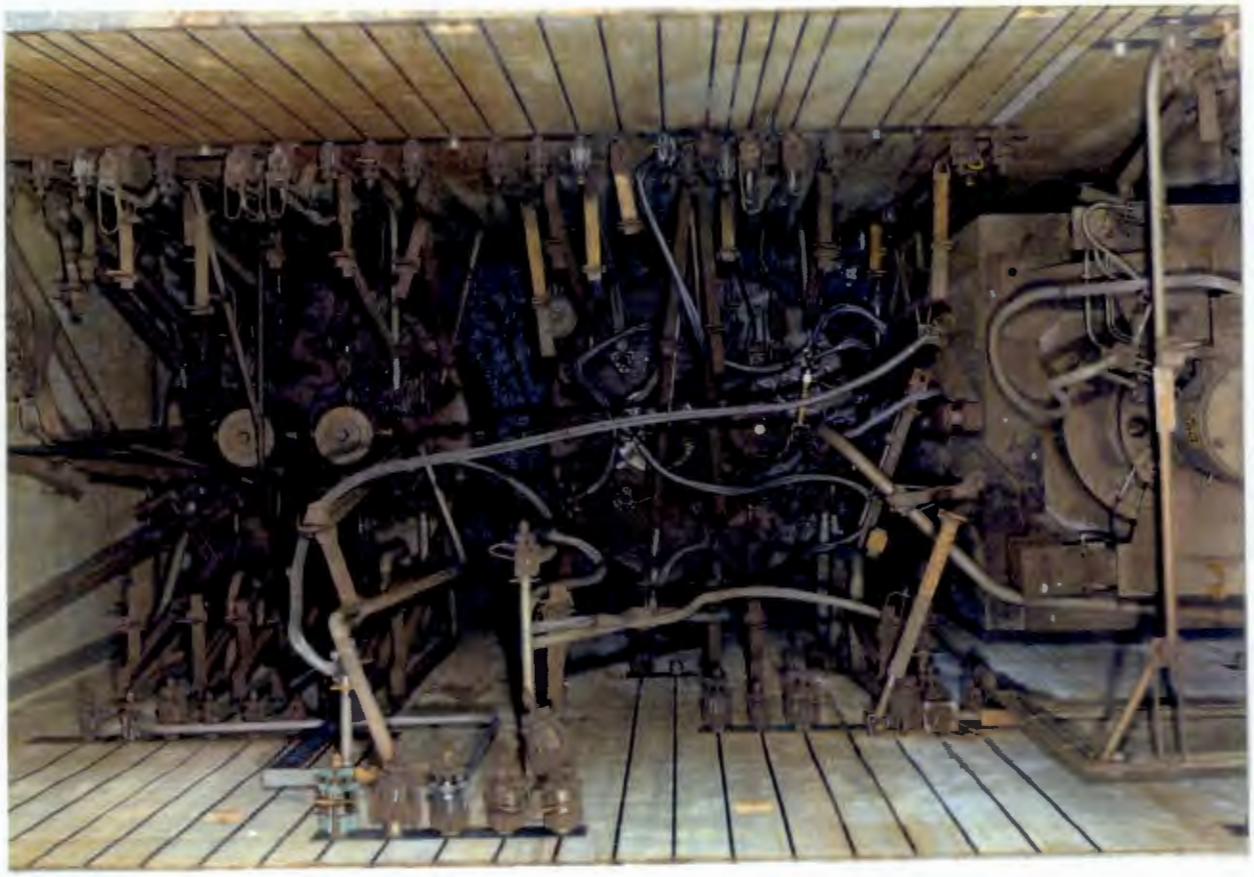
STANDARD 5,000-GALLON TANK (TYPICAL OF E5, F15, F16, AND F18)

8706243-5CN
(PHOTO TAKEN 1987)

9 3 1 2 9 7 9 1 6 4 9

TANK E5

Pipe Tunnel Wall



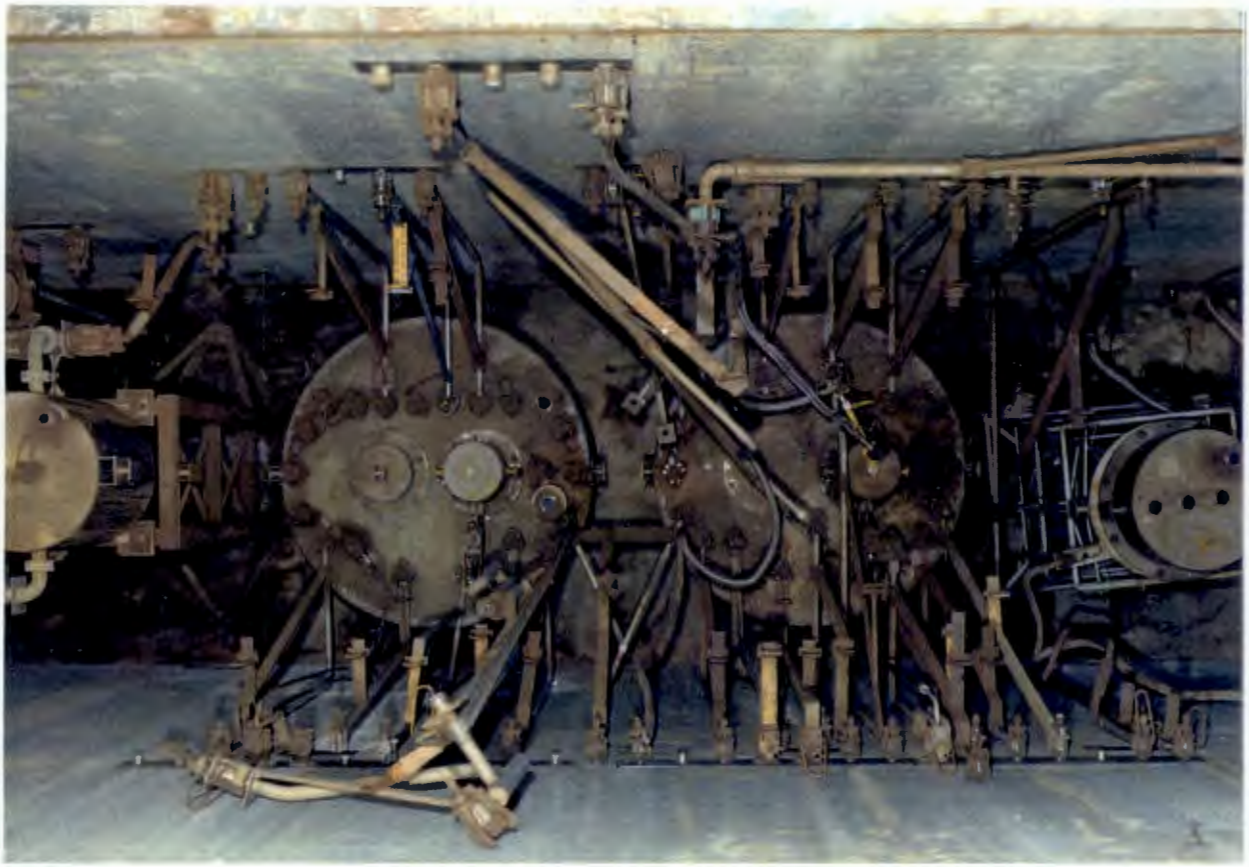
46°32'46"
119°07'58"

099948-38CN
(PHOTO TAKEN 1982)

9 3 1 2 9 7 9 1 6 5 0

TANK F15 AND TANK F16

Pipe Tunnel Wall



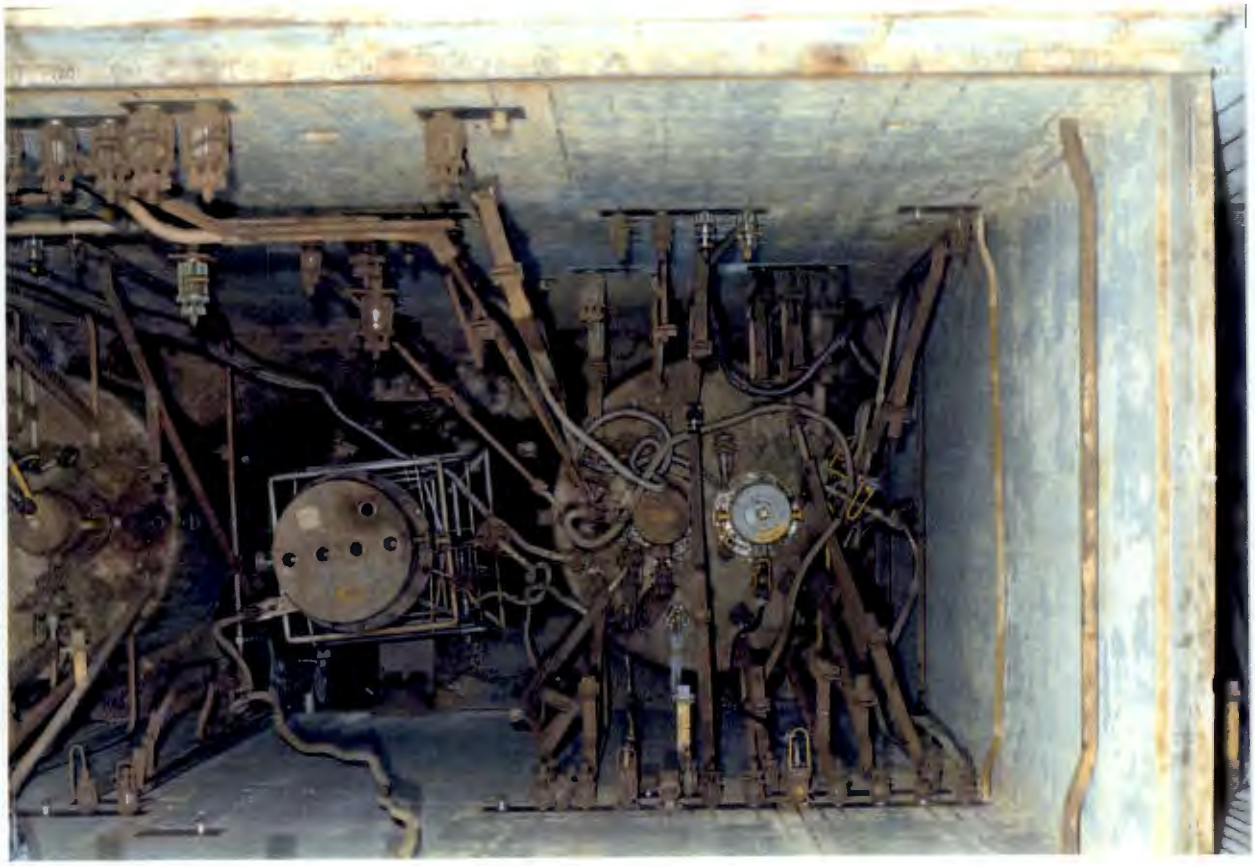
46°32'46"
119°08'00"

099948-71CN
(PHOTO TAKEN 1982)

9 3 1 2 9 7 9 1 6 5 1

TANK F18

Pipe Tunnel Wall



46°32'46"
119°08'01"

099948-74CN
(PHOTO TAKEN 1982)

9 3 1 2 9 3 9 1 6 5 2

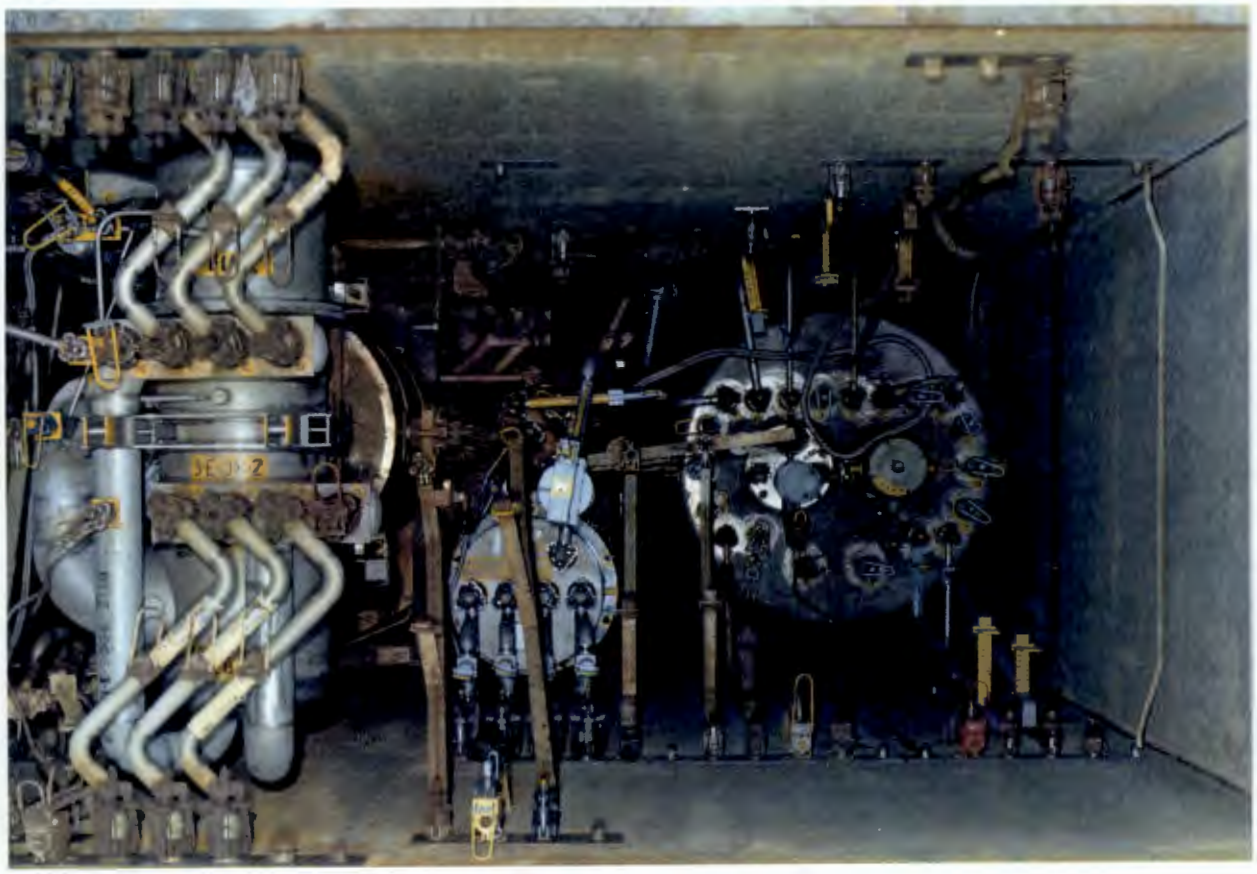
E-F11 CONCENTRATOR

8706243-8CN
(PHOTO TAKEN 1987)

9 3 1 2 9 7 9 1 6 5 3

E-F11 CONCENTRATOR

Pipe Tunnel Wall



46°32'46"
119°07'59"

099948-64CN
(PHOTO TAKEN 1982)

9 3 1 2 9 3 9 1 6 5 4

U CELL

Top of Tank U3 (Typical of Tank U4)

46°32'48"
119°07'56"

92102839-10CN
(PHOTO TAKEN 1992)

9 3 1 2 9 7 9 1 6 5 5

U CELL

Bottom of Tanks

Tank U3 **Tank U4**

46°32'48"
119°07'56"

92102839-7CN
(PHOTO TAKEN 1992)

9 3 1 2 9 3 9 1 6 5 6

Please print or type in the unshaded areas only.
(All — in 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. — FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (see the boxes to the left)

☒ 2. NEW FACILITY (Complete item below.)

MO. 1 2 | DAY | YR. 9 9 — 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 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	P
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. 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
1	T01	33,308	V		6	S02	696,440	L	
2	T04	250*	H		7	T01	417	V	
3	S02	416,350	L		8	S02	431,490	L	
4	S05	2,271*	L		9	S01	1,479,935	L	
5	T01	66,616	V						

* Process Codes T04 and S05 are being used to designate the Hanford Waste Vitrification Plant Melter as a 'miscellaneous unit' per Washington Administrative Code 173-303-680 "Miscellaneous Units."

CONTINUE ON REVERSE

9 3 1 2 9 9 1 6 5 7

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, T04, S02, S05 (Vitrification and Related Treatment and Storage Processes)

The Hanford Waste Vitrification Plant (HWVP) will be located in the 200 East Area of the Hanford Facility. At the HWVP, mixed waste received from a pretreatment unit will be treated in a series of tanks. Treatment will include concentration by evaporation, adjustment with chemicals and glass forming materials, and immobilization in borosilicate glass (vitrification) (T01,T04)[1]. The vitrified waste will be cast into stainless steel canisters and stored at the HWVP until the canisters are shipped to a national repository. The HWVP Melter is designed to process 250 liters per hour of melter feed, producing 100 kilograms per hour of borosilicate glass. The associated HWVP treatment tanks will be designed to process 33,308 liters per day of mixed waste. The dangerous waste treatment tanks will be capable of storing dangerous waste (S02) under offnormal conditions. The HWVP Melter will be capable of storing dangerous waste (S05)[1] under offnormal conditions. The total storage capacity of the tanks included in the vitrification process is 416,350 liters. The storage capacity of the HWVP Melter is 2,271 liters.

1 The HWVP Melter, to be used for treatment (vitrification) (T04) and storage (S05) of dangerous waste, will be considered a 'miscellaneous unit' per Washington Administrative Code (WAC) 173-303-680 "Miscellaneous Units." (continued on next 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 on 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 chromic sludge 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 one letter)	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 1	900	P	T 0 1	D 8 0			
X-2	D 0 0 2	400	P	T 0 1	D 8 0			
X-3	D 0 0 1	100	P	T 0 1	D 8 0			
X-4	D 0 0 2			T 0 1	D 8 0			included with above

 CONTINUE ON PAGE 3

CONTINUATION OF SECTION III.C. PROCESSES - CODES AND DESIGN CAPACITIES

T01, S02, (Tank Treatment and Storage of Secondary Mixed Waste)
Secondary liquid mixed waste generated by the HWVP will be collected and treated (T01) in a series of tanks. Treatment will include neutralization, filtration, sorption, and evaporation. The high-activity fraction from the treatment process will be recycled. The remainder of the waste will be transferred to the Double-Shell Tank System. Treatment design capacity will be 66,616 liters per day of mixed waste. The dangerous waste treatment tanks also will be capable of storing dangerous waste (S02) under offnormal conditions. The total storage capacity of tanks handling secondary liquid mixed waste is 696,440 liters.

T01, S02 (Neutralization, Solar Evaporation, and Tank Storage of Secondary Nonradioactive Dangerous Waste)
Secondary nonradioactive dangerous waste generated from leaks, spills, and/or overflows from chemical storage, makeup, and feed tanks will be collected, treated in a series of tanks (T01), and stored (S02) at the HWVP. Treatment will include neutralization, concentration by solar evaporation, and decomposition of dangerous constituents during storage. Treatment design capacity is 417 liters per day with a storage design capacity of 431,490 liters.

S01 (Storage of Vitrified Waste in Canisters)
The vitrified waste will be cast into stainless steel canisters and stored (S01) at the HWVP until the canisters are shipped to a national repository[1]. Approximately 2,000 canisters of vitrified waste will be stored at the HWVP. Conservatively assuming that the vitrified waste will fill 100 percent of the total canister volume (0.73 cubic meters), the total container storage capacity is 1,479,935 liters.

1 Because the vitrified waste recently has been classified as a listed waste (Dangerous Waste Code, F003 and F005), the U.S. Department of Energy Field Office, Richland intends to submit a petition to the U.S. Environmental Protection Agency to delist the vitrified waste produced at the HWVP. In addition, a variance, per WAC 173-303-072 "Procedures and Bases For Exempting and Excluding Wastes," will be submitted to the Washington State Department of Ecology requesting a variance for the borosilicate glass from the dangerous waste regulations.

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	D001	12,439,600	K	T01	T04	S02	S05	Treatment-Tank/Treatment-Other Miscellaneous Unit
2	D002							Storage-Tank/Storage-Other-Miscellaneous Unit
3	D003							
4	D004							
5	D005							
6	D006							
7	D007							
8	D008							
9	D009							
10	D010							
11	D011							
12	WC01							
13	WC02							
14	WP01							
15	WP02							
16	WT01							
17	F003							
18	F005							Included With Above
19								
20								
21								
22								
23								
24								
25								
26								

9 3 1 2 9 9 1 6 6 0

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	D002	17,161,200	K	T01	S02			Treatment-Tank/Storage-Tank of Secondary Liquid Mixed Waste
2	D004							
3	D005							
4	D006							
5	D007							
6	D008							
7	D009							
8	D010							
9	D011							
10	WC02							
11	WP01							
12	WP02							
13	WT01							
14	F003							
15	F005							Included With Above
16	D002	149,900	K	T01	S02			Treatment-Tank/Storage-Tank of Secondary Liquid Mixed Waste
17	WT01							
18	WT02							Included With Above
19	WT01	876,300	K	S01				Storage-Container of Vitrified Waste
20	F003							
21	F005							Included With Above
22								
23								
24								
25								
26								

9 3 1 2 9 9 1 6 6 1

Continued from the front

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

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

The mixed waste that will be treated and stored in stainless steel canisters at the HWVP will consist of existing and future high-activity waste stored in the Double-Shell Tank System. The mixed waste is expected to be designated as an Extremely Hazardous Waste (EHW) due to toxicity (WT01). The mixed waste will be designated as a Dangerous Waste (DW) due to ignitability (D001), corrosivity (D002), reactivity (D003), and the presence of spent nonhalogenated solvents (F003 and F005). The mixed waste also will be designated state-only dangerous waste (EHW or DW) for carcinogenic (WC01, WC02) and persistent (WP01, WP02).

The secondary liquid mixed waste is expected to be designated DW due to corrosivity (D002), carcinogenic (WC02), and to the presence of spent nonhalogenated solvents (F003 and F005). The secondary liquid mixed waste also will be designated state-only dangerous waste (EHW or DW) for persistent (WP01, WP02) and toxicity (WT01, WT02). Treatment is expected to eliminate the EHW designation of the secondary liquid mixed waste before this mixed waste is transferred out of this unit.

The secondary nonradioactive chemical waste that will be treated and stored at the HWVP is expected to be designated DW due to corrosivity (D002) and EHW or DW for toxic (WT01, WT02) state-only dangerous waste. Treatment is expected to eliminate the EHW characteristics designation before treatment and storage in the Solar Evaporation Tank.

The vitrified waste stored in stainless steel canisters is expected to be designated DW due to the presence of spent nonhalogenated solvents (F003 and F005) and EHW for toxic (WT01) state-only dangerous 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 the 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
John D. Wagoner Manager, Field Office, Richland United States Department of Energy		9 30 91

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.

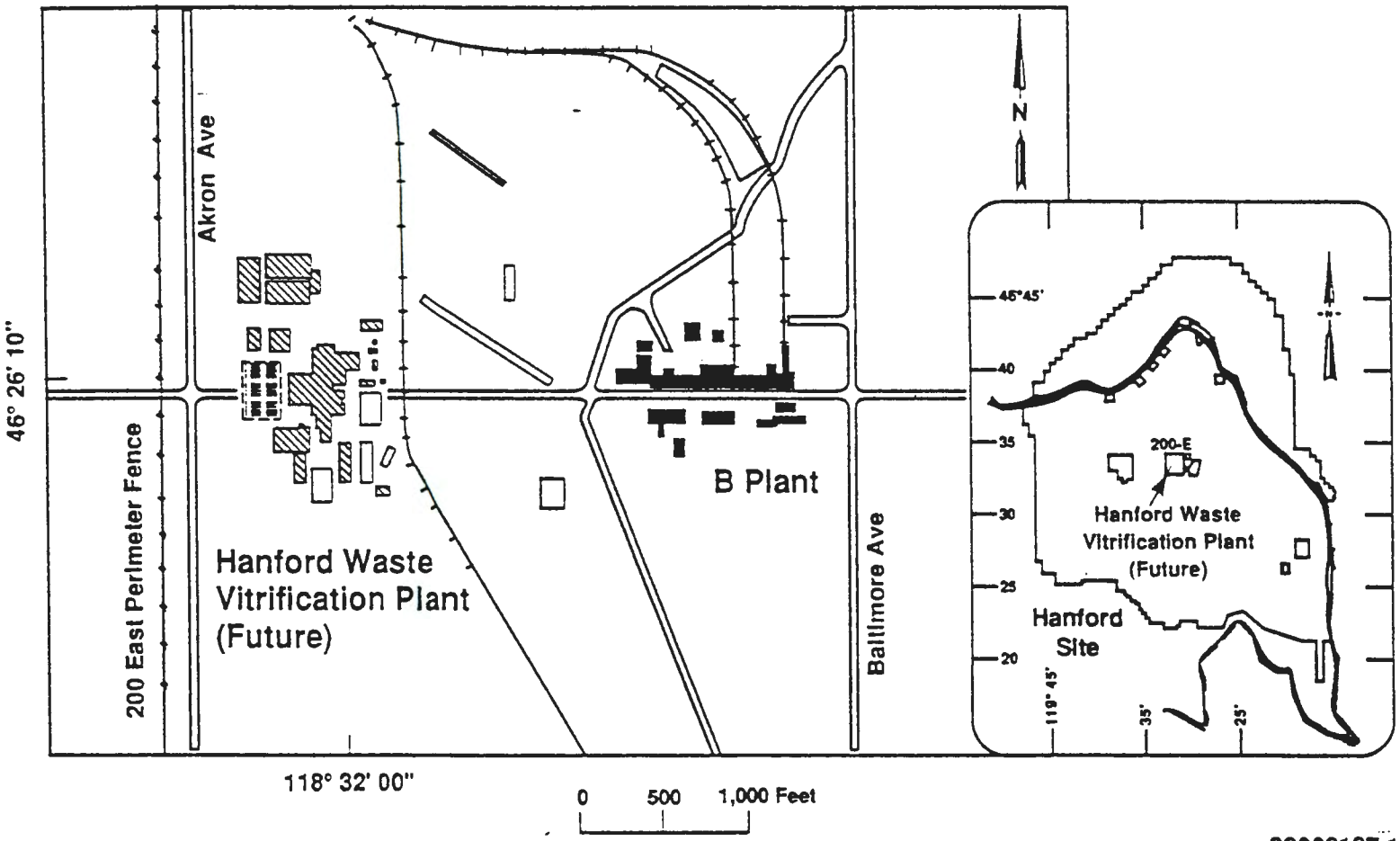
9 30 91
Date

for Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
Field Office, Richland

9/5/91
Date

Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

Hanford Waste Vitrification Plant
Future Site Plan



39009137.1

HANFORD WASTE VITRIFICATION PLANT PROPOSED LOCATION--AERIAL VIEW

46°33'18"
119°32'00"

8600906-13CN
(PHOTO TAKEN 1986)

9 3 1 2 9 3 9 1 6 6 5

HANFORD WASTE VITRIFICATION PLANT FUTURE CONCEPTUAL LAYOUT

46°33'18"
119°32'00"

90112857-1CN
(PHOTO TAKEN 1990)

9312291666

Please print or type in the unshaded areas only
(Ø – ⊓ 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 — FOR EXISTING FACILITIES, PROVIDE THE DATE *(mo., day, & yr.)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to the left)*

☒ 2. NEW FACILITY *(Complete item below.)*

MO. 0 6 | DAY 3 0 | YR 9 4 — 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	O

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	T 0 1	216,000	U		7				
2					8				
3					9				
4					10				

9 3 1 2 9 9 1 6 6 7

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

The 242-A Evaporator/PUREX Plant Condensate Treatment Facility will be constructed to treat mixed waste process condensate from the 242-A Evaporator and two non-regulated PUREX waste streams (T01). This waste management unit will be located on the northeast corner of the 200 East Area. The treatment process will include filtration, pH adjustments, ultraviolet light oxidation, reverse osmosis, ion exchange, and effluent quality verification tanks. When the high-quality effluent meets the discharge standards as established by the regulations, the effluent will be discharged to the soil. Process condensate that has been treated and is rejected will be reprocessed. The secondary waste will be concentrated in a form suitable for disposal to a solid waste disposal site.

The treatment process will be designed to treat a maximum of 150 gallons per minute or 216,000 gallons per 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 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

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): 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	F003	657,935,600	P	T01				Treatment - Tank
2	F005		↓	↓				↓
3	WT01		↓	↓				Included With Above
4								
5								
6								
7								
8								
9								
10								
11								
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9 3 1 2 9 9 1 6 6 9

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 242-A Evaporator/PUREX Plant Condensate Treatment Facility will treat the mixed waste process condensate effluent from the 242-A Evaporator and two non-regulated PUREX waste streams. The mixed waste process condensate effluent from the 242-A Evaporator will be regulated as a dangerous waste due to the presence of spent nonhalogenated solvents (F003 and F005) and for the toxicity of ammonia (WT02, toxic state-only dangerous waste).

The annual quantity of waste listed under item IV.B was calculated using an operating schedule of 365 days per year. This calculation was done to provide a maximum annual estimated quantity of waste that may be processed by this waste management unit.

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 the 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
John D. Wagoner Manager, Richland Operations United States Department of Energy	John D. Wagoner	6/26/91

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

9 3 1 2 9 9 1 6 7 0

X. OPERATOR CERTIFICATION

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John D. Wagoner

Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
Richland Operations Office

6/26/91
Date

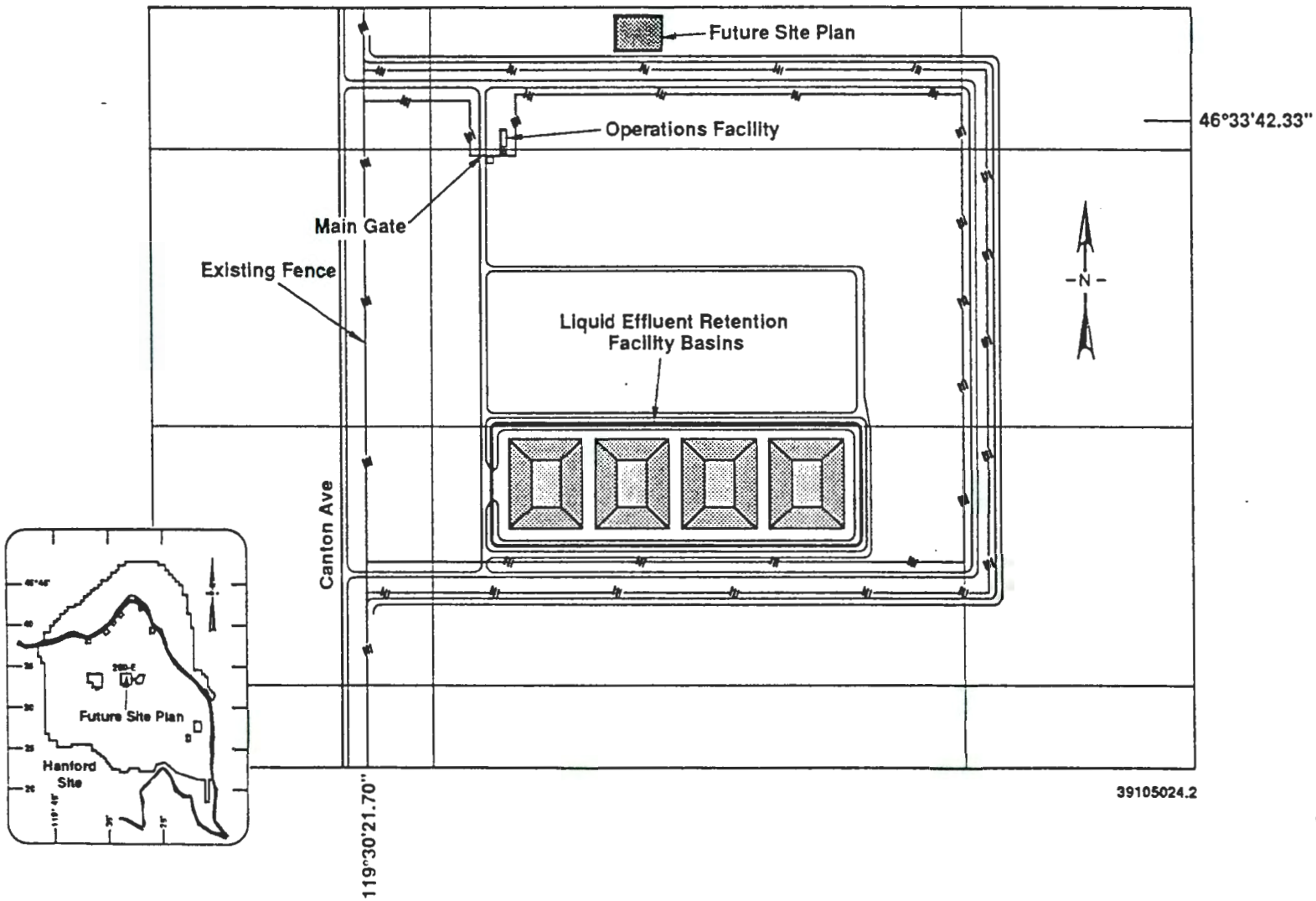
Thomas M. Anderson

Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

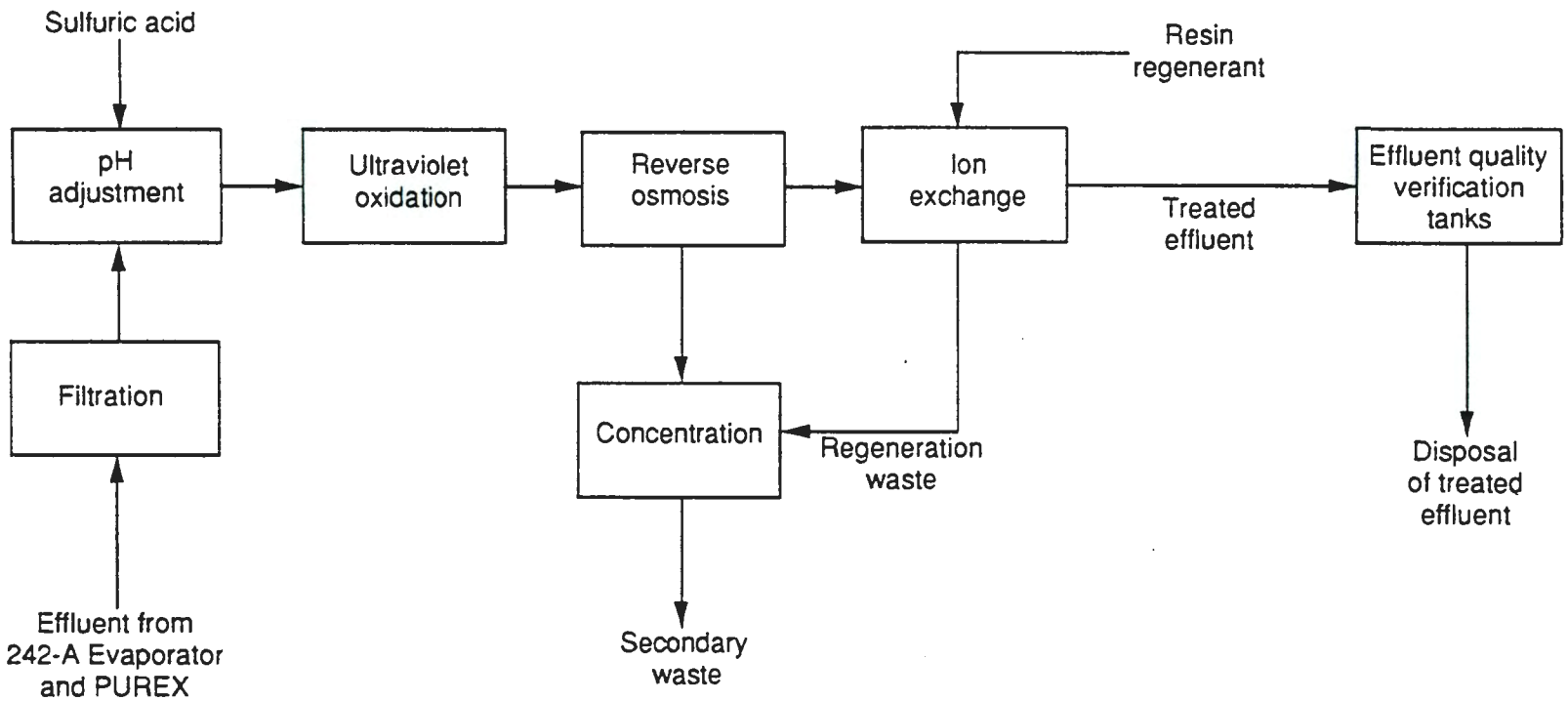
5/23/91
Date

9 1 0 9 1 6 7 1

242-A Evaporator/PUREX Plant Condensate Treatment Facility Future Site Plan



242-A EVAPORATOR/PUREX PLANT CONDENSATE TREATMENT FACILITY PRELIMINARY PROCESS FLOWSHEET



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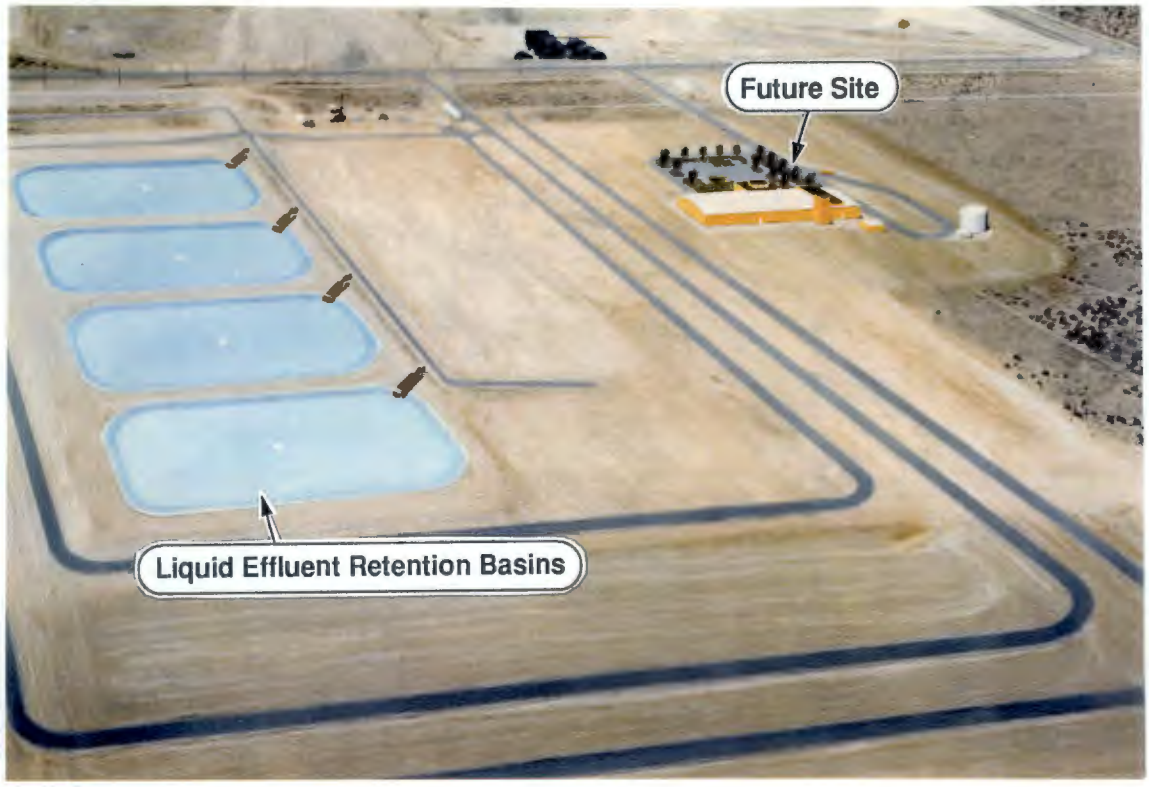
242-A EVAPORATOR/PUREX PLANT CONDENSATE TREATMENT FACILITY



CONCEPTUAL PLANT LAYOUT

46°33'42.33"
119°30'21.70"

91052030-2CN
(PHOTO TAKEN 1991)

9 3 1 2 9 3 9 1 6 7 4

242-A EVAPORATOR/PUREX PLANT CONDENSATE TREATMENT FACILITY

PROPOSED LOCATION

46°33'42.33"
119°30'21.70"

91052030-1CN
(PHOTO TAKEN 1991)

9 3 1 2 9 3 9 1 6 7 5

DOE/RL-88-21
Volume 2 of 3

UC-630, 721

Hanford Facility Dangerous Waste Part A Permit Application

Date Published
April 1993

United States
Department of Energy
P.O. Box 550
Richland, Washington 99352

Approved for Public Release

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HANFORD FACILITY DANGEROUS WASTE PART A PERMIT APPLICATION

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4.2.1.1	221-T Containment Systems Test Facility[d,c]	2
4.2.1.2	200 West Area Ash Pit Demolition Site[d,c]	3 ♦
4.2.1.3	218-E-8 Borrow Pit Demolition Site[d,c]	3 ♦
4.2.1.4	242-A Evaporator[m,a]	4 ♦
4.2.1.5	Grout Treatment Facility[m,a]	4 ♦
4.2.1.6	T Plant Treatment Tank[m,a]	0
4.2.1.7	241-Z Treatment and Storage Tanks[m,a]	3 ♦
4.2.1.8	B Plant[m,a]	1
4.2.1.9	222-S Laboratory Complex[m,a]	2 ♦
4.2.1.10	204-AR Waste Unloading Station[m,a]	2 ♦
4.2.1.11	PUREX Plant[m,a]	3 ♦
4.2.1.12	Hanford Waste Vitrification Plant[m,a]	4 ♦
4.2.1.13	242-A Evaporator/PUREX Plant Condensate Treatment Facility[m,a]	0 ♦

VOLUME 1 OF 3

d = Dangerous waste treatment, storage, and/or disposal unit.
m = Mixed waste treatment, storage, and/or disposal unit.
a = Active treatment, storage, and/or disposal unit.
c = Treatment, storage, and/or disposal unit closing under interim status.
♦ = Revised this issue.

CONTENTS (cont)

		Revision	
4.2.2	Storage Facilities		
4.2.2.1	2727-S Storage Facility[d,c]	2	
4.2.2.2	Double-Shell Tank System[m,a]	5 ♦	
4.2.2.3	Hexone Storage and Treatment Facility[m,c]	2 ♦	
4.2.2.4	2727-WA SRE Sodium Storage Building[m,c]	0	
4.2.2.5	PUREX Tunnels 1 and 2[m,a]	1	
4.2.2.6	224-T Transuranic Waste Storage and Assay Facility[m,a]	3 ♦	VOLUME
4.2.2.7	Hanford Central Waste Complex[m,a] (Radioactive Mixed Waste Storage Facility, Waste Receiving and Processing Facility)	1	
4.2.2.8	Single-Shell Tank System[m,a]	2 ♦	
4.2.2.9	207-A South Retention Basin[m,c]	0	
4.2.2.10	Liquid Effluent Retention Facility[m,a]	1 ♦	2
4.2.2.11	241-CX Tank System[m,c]	1 ♦	
4.2.3	Disposal Facilities		0
4.2.3.1	Low-Level Burial Grounds[m,a]	6	F
4.2.3.2	216-S-10 Pond and Ditch[m,c]	2	
4.2.3.3	2101-M Pond[d,c]	2	3
4.2.3.4	216-A-29 Ditch[m,c]	2	
4.2.3.5	216-B-3 Pond System[m,c]	3	
4.2.3.6	216-B-63 Trench[m,c]	2	
4.2.3.7	216-A-10 Crib[m,c]	2	
4.2.3.8	216-U-12 Crib[m,c]	2	
4.2.3.9	216-A-36B Crib[m,c]	0	
4.2.3.10	216-A-37-1 Crib[m,c]	1 ♦	
4.3	300 AREA FACILITIES		VOLUME
4.3.1	Treatment Facilities		
4.3.1.1	3718-F Alkali Metal Treatment and Storage Area[d,c]	3 ♦	
4.3.1.2	324 Sodium Removal Pilot Plant[m,a]	3	
4.3.1.3	304 Concretion Facility[m,c]	4	
4.3.1.4	300 Area Solvent Evaporator[m,c]	4	3
4.3.1.5	300 Area Waste Acid Treatment System[m,c]	3	
4.3.1.6	303-M Oxide Facility[m,a]	0	0
4.3.1.7	325/3100 Hazardous Waste Treatment Unit[m,a]	1 ♦	F
4.3.1.8	Biological Treatment Test Units[m,a]	0	
			3

d = Dangerous waste treatment, storage, and/or disposal unit.
m = Mixed waste treatment, storage, and/or disposal unit.
a = Active treatment, storage, and/or disposal unit.
c = Treatment, storage, and/or disposal unit closing under interim status.
♦ = Revised this issue.

CONTENTS (cont)

	Revision
4.3.1.9 Physical and Chemical Treatment Test Facilities[m,a]	1 ♦
4.3.1.10 Thermal Treatment Test Units[m,a]	0
4.3.2 Storage Facilities	
4.3.2.1 311 Tanks[m,c] (incorporated into 300 Area Waste Acid Treatment System, Rev. 3)	1
4.3.2.2 303-K Storage Unit[m,c]	3
4.3.2.3 305-B Storage Unit[m,a]	1
4.3.2.4 332 Storage Unit[m,a]	0
4.3.3 Disposal Facilities	
4.3.3.1 300 Area Process Trenches[m,c]	2
4.4 400 AREA FACILITIES	
4.4.1 Treatment Facilities	
4.4.1.1 Maintenance and Storage Facility[m,a]	2
4.4.2 Storage Facilities	
4.4.2.1 4843 Alkali Metal Storage Facility[m,c]	2 ♦
4.5 600 AREA FACILITIES	
4.5.1 Treatment Facilities	
4.5.1.1 Hanford Patrol Academy Demolition Sites[d,c]	3 ♦
4.5.2 Storage Facilities	
4.5.2.1 616 Nonradioactive Dangerous Waste Storage Facility[d,a]	4
4.5.2.2 600 Area Purgewater Storage and Treatment Facility[m,a]	0
4.5.3 Disposal Facility	
4.5.3.1 Nonradioactive Dangerous Waste Landfill[d,c]	3
4.6 1100 AREA FACILITIES	
4.6.1 Treatment Facilities	
4.6.1.1 Simulated High-Level Waste Treatment and Storage Unit[m,c]	0

VOLUME 3 OF 3

d = Dangerous waste treatment, storage, and/or disposal unit.
m = Mixed waste treatment, storage, and/or disposal unit.
a = Active treatment, storage, and/or disposal unit.
c = Treatment, storage, and/or disposal unit closing under interim status.
♦ = Revised this issue.

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

FORM 3

DANGEROUS WASTE PERMIT APPLICATION

1. 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 *(use the boxes to the left)*

*See Attached Tank List Table

☐ 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 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. 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 2	33,100,000	G		7				
2	T 0 1	33,100,000	U		8				
3					9				
4					10				

9 3 1 2 9 9 1 6 8 1

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.

The Double-Shell Tank (DST) System is used for the interim storage (S02) of liquid mixed waste generated on the Hanford Facility. Several operating plants in the 200 East and 200 West Areas of the Hanford Facility transfer liquid mixed waste through buried double-encased transfer lines to designated underground DSTs. The low-level liquid mixed waste is accumulated in the DST System until the waste is transferred for treatment and disposal to the Grout Treatment Facility. The high-activity liquid mixed waste from the DST System will be treated at the Hanford Waste Vitrification Plant (HWVP) and shipped for disposal to a national repository. Interim treatment might also be performed at a pretreatment unit and the 242-A Evaporator.

Other types of liquid mixed waste in the DST System are received from railroad car transfers, tank truck transfers, the Single-Shell Tank System, and smaller temporary storage tanks.

A list of the DST System tanks is shown in the attached Tank List Table, which includes tank numbers, locations, design capacities, and operational dates.

The DST System tanks are considered treatment units (T01) because chemicals can be added for corrosion control, the waste can be mixed using equipment such as airlift circulators or pumps, and water can be evaporated from the aging waste tanks by adding heat. It is possible that up to 33,100,000 gallons (125,300,000 liters) can be treated in a 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 additionel 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

TANK LIST TABLE (Sheet 1 of 2)

1. There are twenty-four 1,200,000 million gallon nonaging waste double-shell tanks.

Tank number	Location	Design capacity (gallons)	Operation Date
241-AN-101	200 East Area	1,200,000	09/81
241-AN-102	200 East Area	1,200,000	09/81
241-AN-103	200 East Area	1,200,000	09/81
241-AN-104	200 East Area	1,200,000	09/81
241-AN-105	200 East Area	1,200,000	09/81
241-AN-106	200 East Area	1,200,000	09/81
241-AN-107	200 East Area	1,200,000	09/81
241-AP-101	200 East Area	1,200,000	10/86
241-AP-102	200 East Area	1,200,000	10/86
241-AP-103	200 East Area	1,200,000	10/86
241-AP-104	200 East Area	1,200,000	10/86
241-AP-105	200 East Area	1,200,000	10/86
241-AP-106	200 East Area	1.200,000	10/86
241-AP-107	200 East Area	1,200,000	10/86
241-AP-108	200 East Area	1,200,000	10/86
241-AW-101	200 East Area	1,200,000	08/80
241-AW-102	200 East Area	1,200,000	08/80
241-AW-103	200 East Area	1,200,000	08/80
241-AW-104	200 East Area	1,200,000	08/80
241-AW-105	200 East Area	1,200,000	08/80
241-AW-106	200 East Area	1,200,000	08/80
241-SY-101	200 West Area	1,200,000	04/77
241-SY-102	200 West Area	1,200,000	04/77
241-SY-103	200 West Area	1,200,000	04/77

2. There are four 1,000,000 million gallon aging waste double-shell tanks.

Tank numbers	Location	Design capacity (gallons)	Operation date
241-AY-101	200 East Area	1,000,000	04/71
241-AY-102	200 East Area	1,000,000	04/76*
241-AZ-101	200 East Area	1,000,000	11/76
241-AZ-102	200 East Area	1,000,000	11/76

* Estimated operational date.

TANK LIST TABLE (Sheet 2 of 2)

3. There are six tanks in the waste transfer vaults.

Tank number	Location	Design capacity (gallons)	Operation Date
244-AR-001	200 East Area	40,000	1977
244-AR-002	200 East Area	41,230	1977
244-AR-003	200 East Area	4,530	1977
244-AR-004	200 East Area	4,472	1977
244-CR-003	200 East Area	14,660	1946
244-CR-011	200 East Area	45,000	1946

4. There is one 800 gallon tank in a transfer building.

Tank number	Location	Design capacity (gallons)	Operation date
241-EW-151	200 East-West Vent Station	800	11/55*

* Estimated operational date.

5. There are five double-contained receiver tanks.

Tank number	Location	Design capacity (gallons)	Operation Date
244-TX	200 West Area	31,000	12/81
244-BX	200 East Area	31,000	1983
244-U	200 West Area	31,000	1987
244-S	200 West Area	20,280	1987
244-A	200 East Area	16,280	1975

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

I.D. NUMBER *(entered from page 1)*: 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	720,000,000	P	S02	T01			Storage/Chemical Treatment-Evap.
2	D002							
3	D003							
4	D004							
5	D005							
6	D006							
7	D007							
8	D008							
9	D009							
10	D010							
11	D011							
12	D018							
13	D019							
14	D022							
15	D028							
16	D029							
17	D030							
18	D033							
19	D034							
20	D035							
21	D036							
22	D038							
23	D039							
24	D040							
25	D041							
26	D043							

9 3 1 2 9 9 1 6 8 5

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

I.D. NUMBER *(entered from page 1)*: 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	720,000,000	P	S02	T01			Storage/Chemical Treatment-Evap.
2	WT02							
3	WC01							
4	WC02							
5	WP01							
6	WP02							
7	F001							
8	F002							
9	F003							
10	F004							
11	F005							Included With Above
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								

9 3 1 2 9 9 1 6 8 6

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 ATTACHED SHEET

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 the 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
John D. Wagoner, Manager U.S. Department of Energy Richland Field Office	John D. Wagoner	2/26/93

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

9 3 1 2 9 9 1 6 8 7

DANGEROUS WASTE PERMIT APPLICATION
U.S. ENVIRONMENTAL PROTECTION AGENCY/STATE IDENTIFICATION NUMBER WA789008967

Section IV.E., "Description of Dangerous Wastes Listed in Section IV.D."

The types of liquid mixed waste that are stored, chemically treated, and evaporated in the DST System are as follows:

- Dilute miscellaneous waste generated on the Hanford Facility
- Supernate and transuranic sludges that consist of neutralized cladding removal waste generated during Plutonium-Uranium Extraction (PUREX) Plant headend operations, and waste generated during Plutonium Finishing Plant processing
- Concentrated DST waste (slurry) from the 242-A Evaporator
- Concentrated complexed waste and complexed waste generated from B Plant processing
- Neutralized current acid waste from the first extraction column at the PUREX Plant
- Liquid waste from the Single-Shell Tank System.

It is possible that any of these waste types could be stored and/or treated in any of the nonaging or aging DSTs.

The list of dangerous waste under item IV.A. includes the toxic constituents of cadmium and silver. These constituents have not been detected in the waste, but knowledge of the processes providing the waste to the DST System indicates the strong possibility that these constituents will be in the waste. Toxicity characteristic leaching procedure constituents listed under item IV.A. have not been detected in the waste; however, the DST System has the potential to store these constituents. All other waste listed on this form is based on actual analytical data.

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 D. Wagoner

Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
Richland Field Office

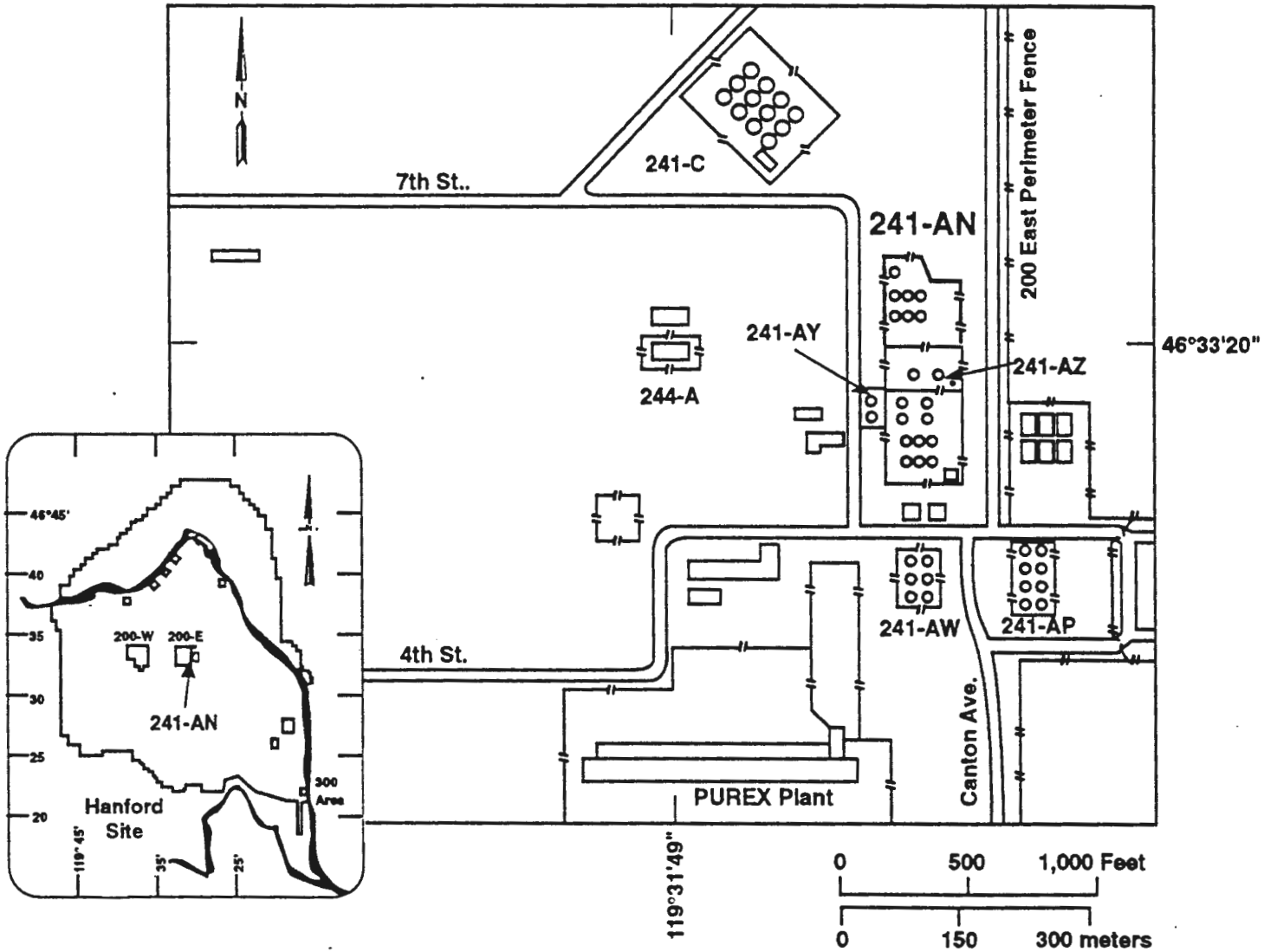
2/26/93
Date

Thomas M. Anderson

Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

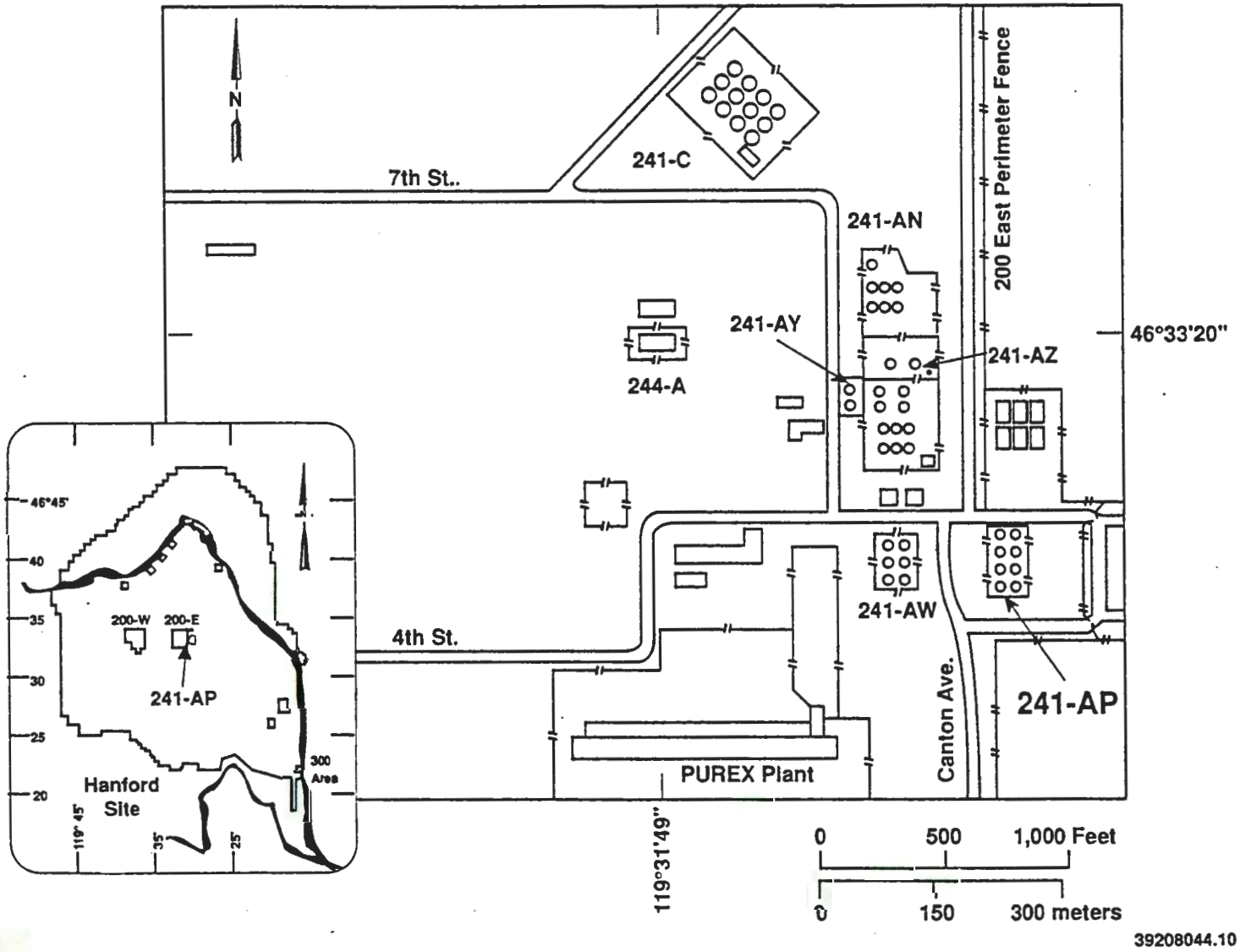
2/4/93
Date

241-AN Double Shell Tank
Site Plan

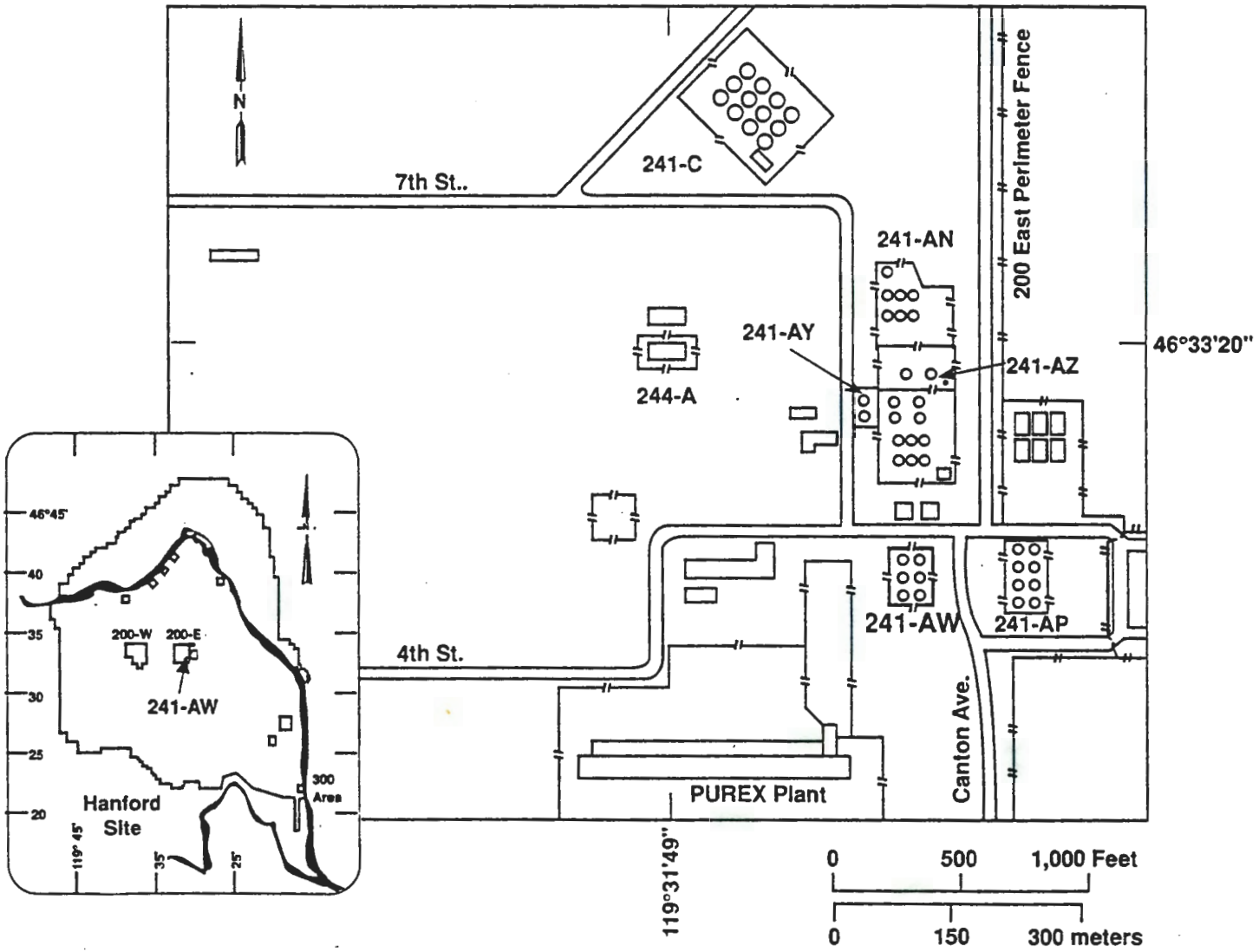


39208044.9

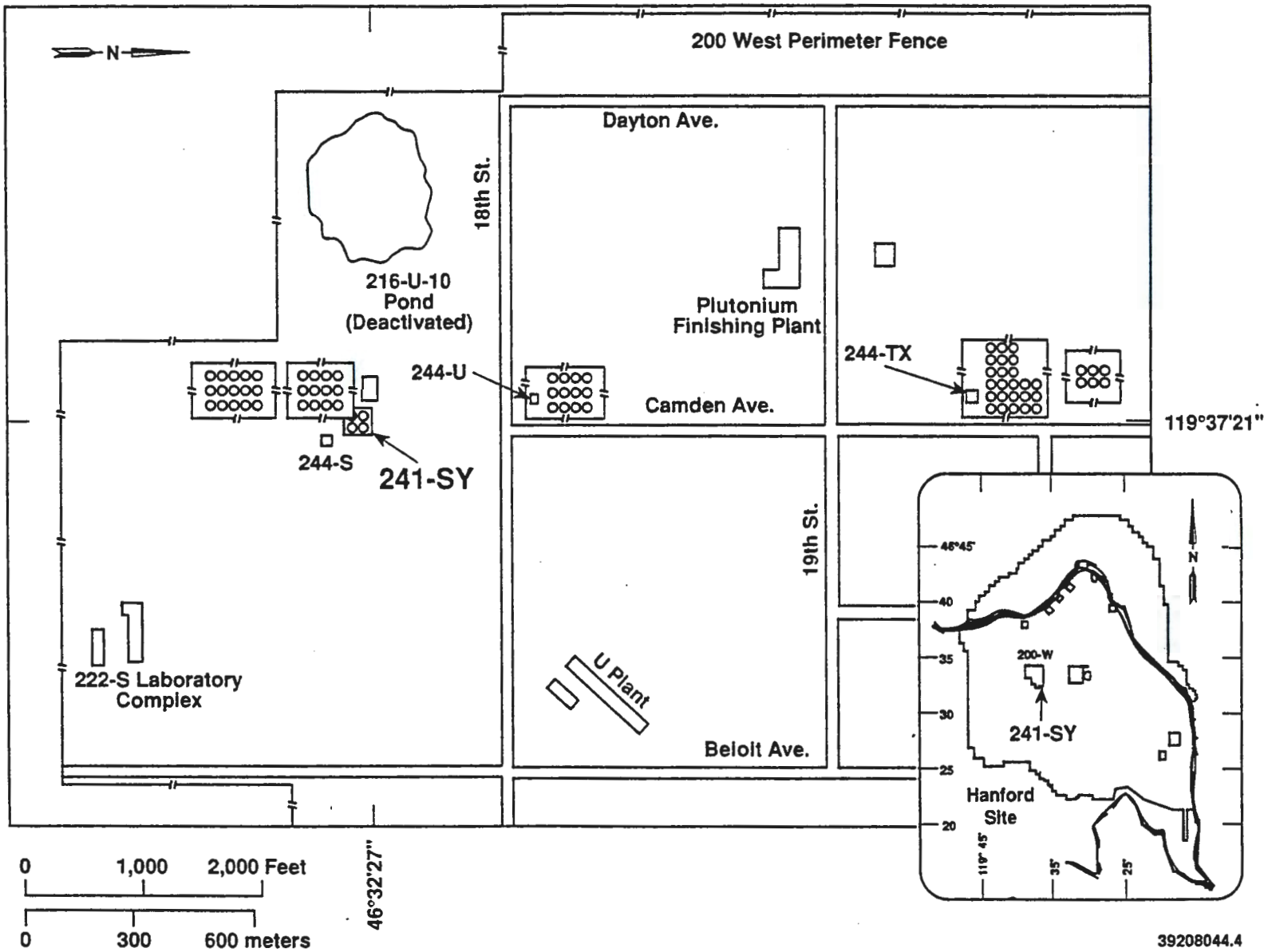
241-AP Double Shell Tank
Site Plan



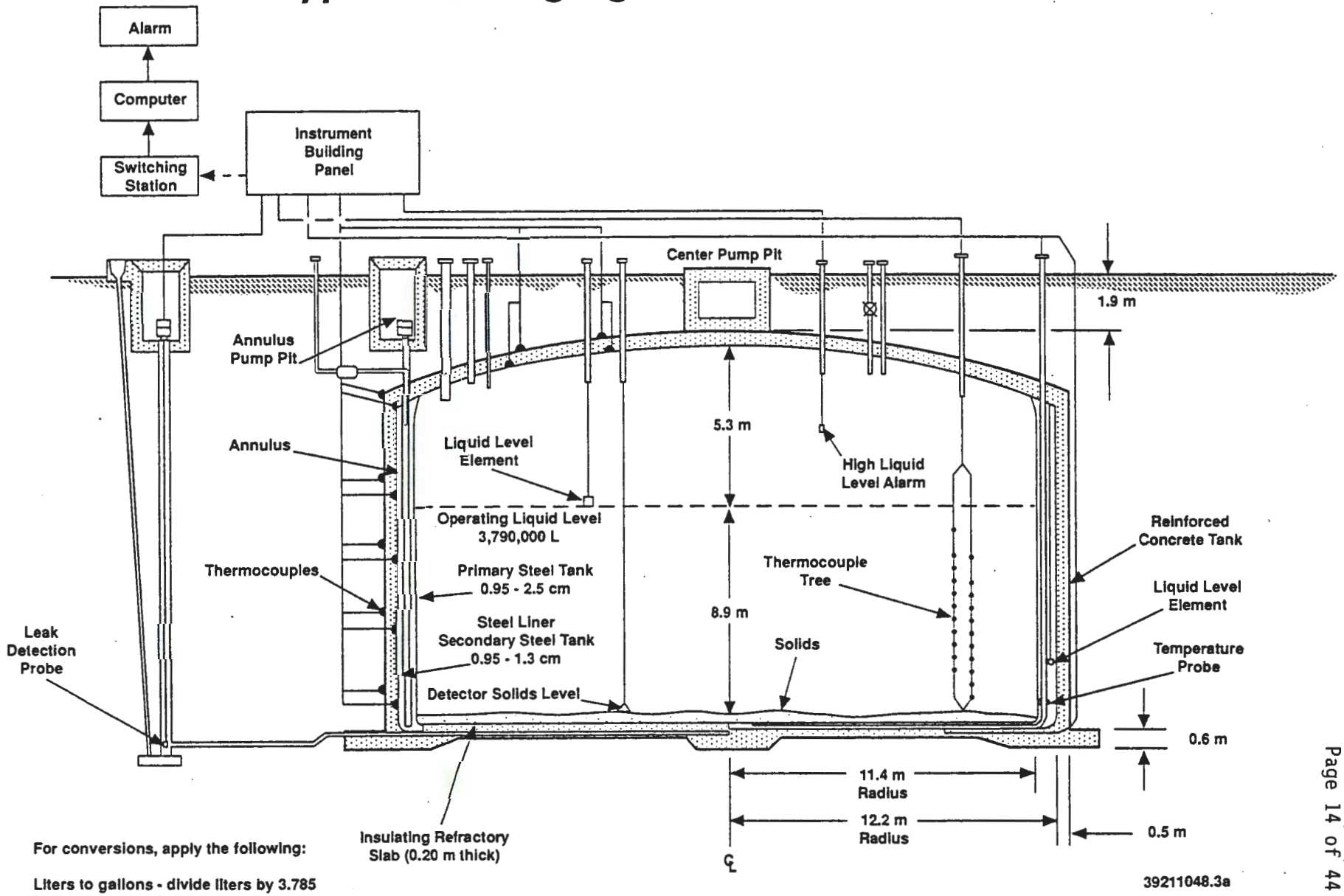
241-AW Double Shell Tank
Site Plan



241-SY Double Shell Tank
Site Plan



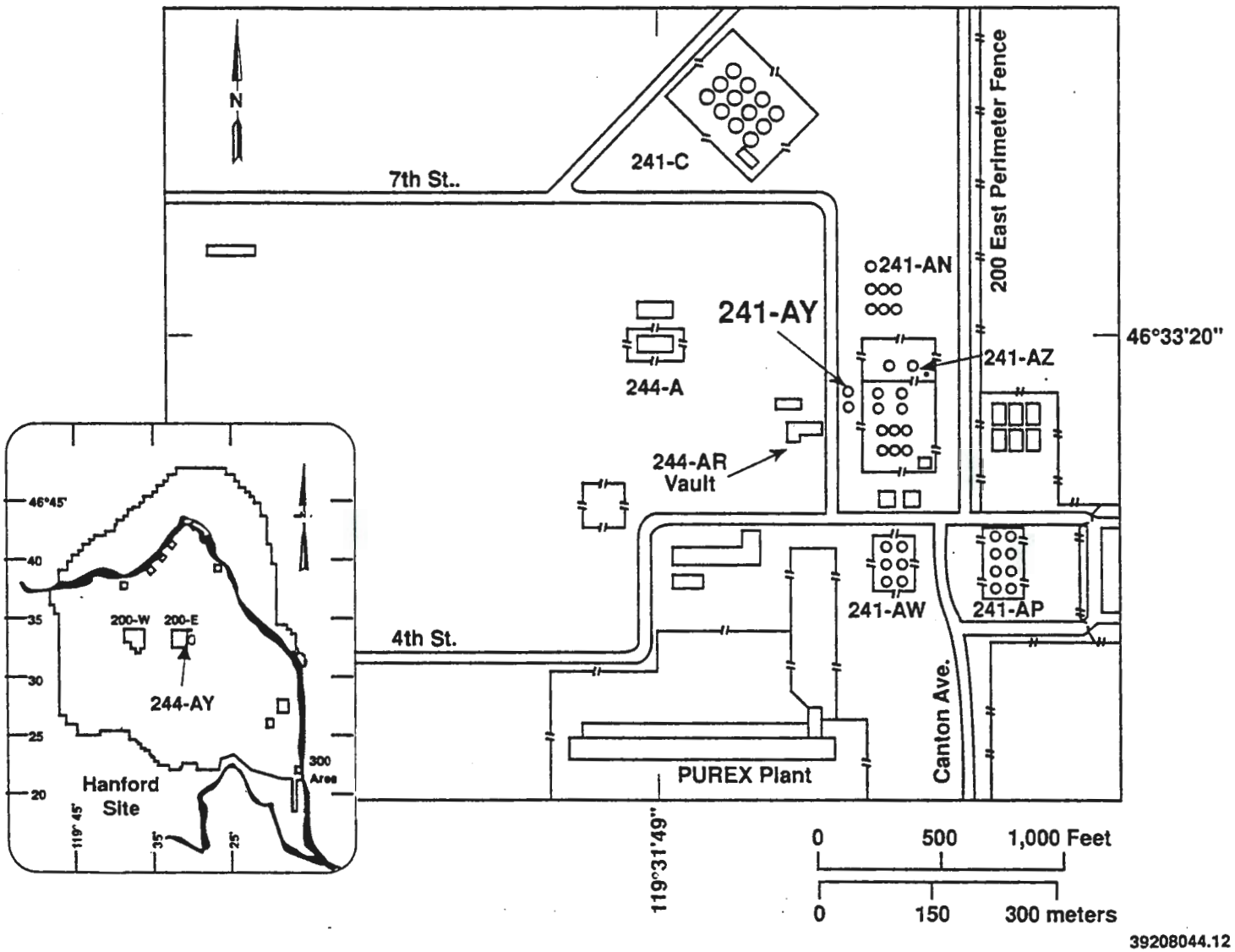
Typical Nonaging Waste Double-Shell Tank



For conversions, apply the following:

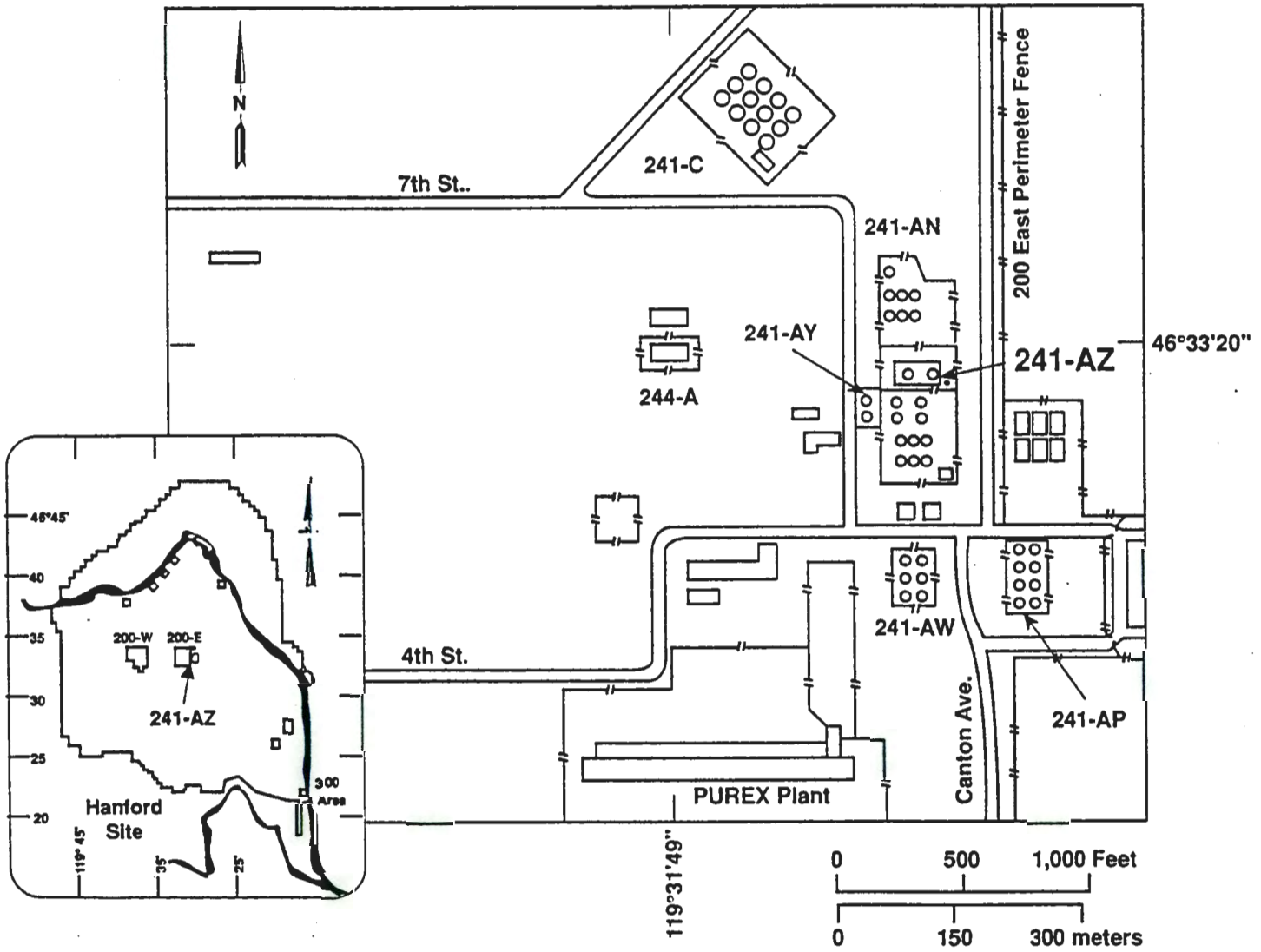
Liters to gallons - divide liters by 3.785
Meters to feet - divide meters by 0.3048
Centimeters to inches - divide centimeters by 2.54

241-AY Aging Waste Double Shell Tank
Site Plan



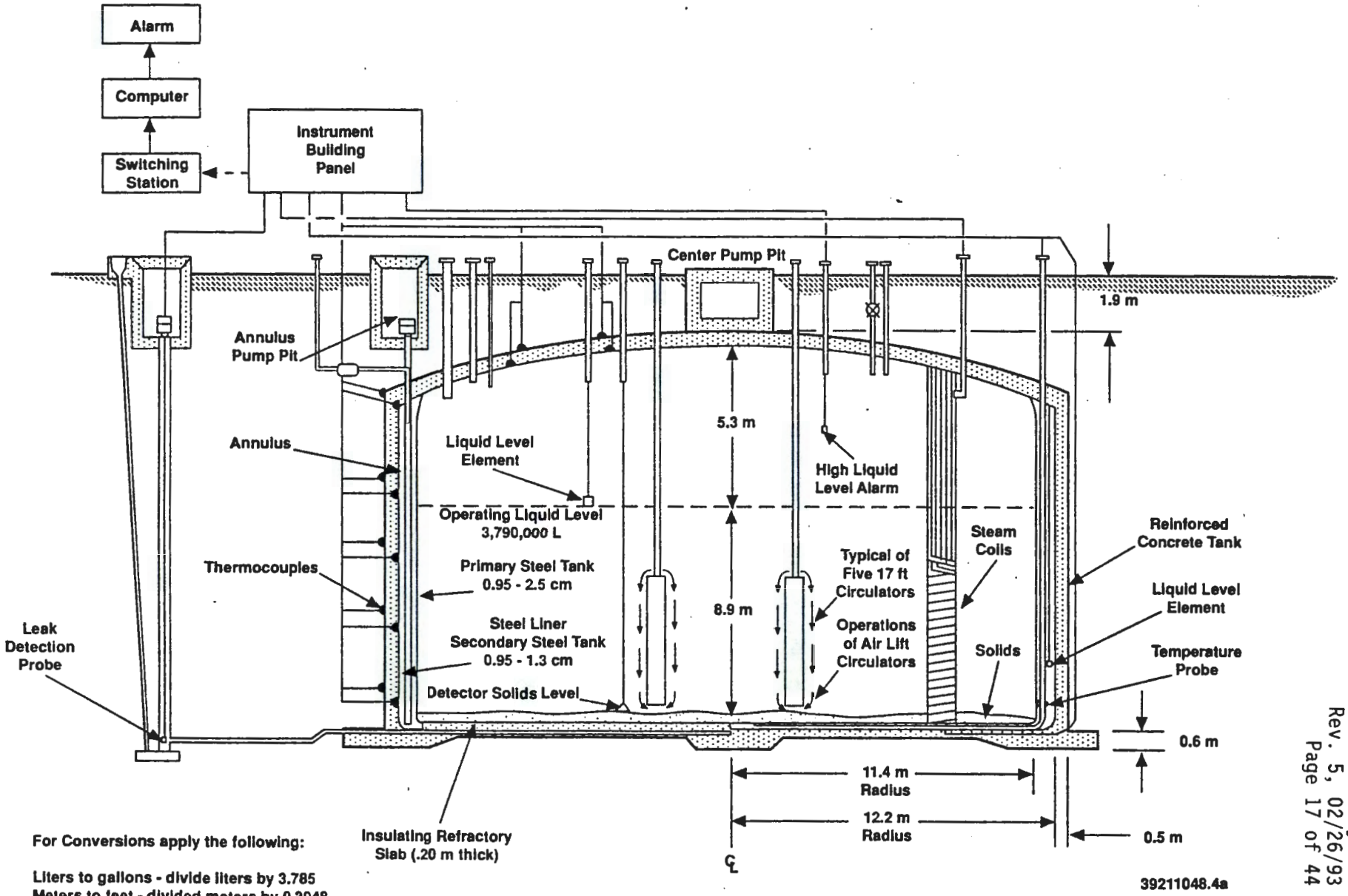
39208044.12

241-AZ Aging Waste Double Shell Tank
Site Plan



39208044.13

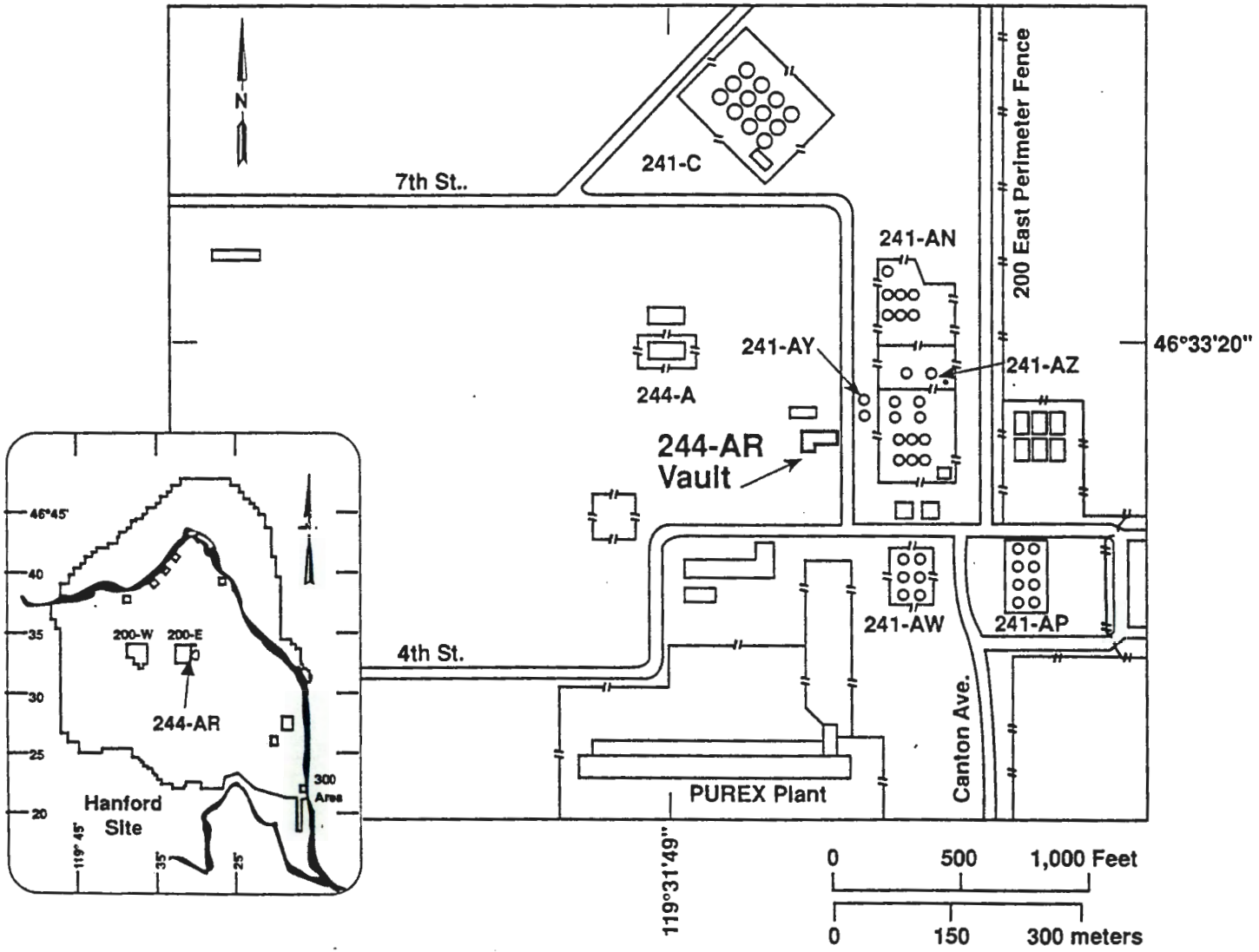
Typical Aging Waste Double-Shell Tank



For Conversions apply the following:

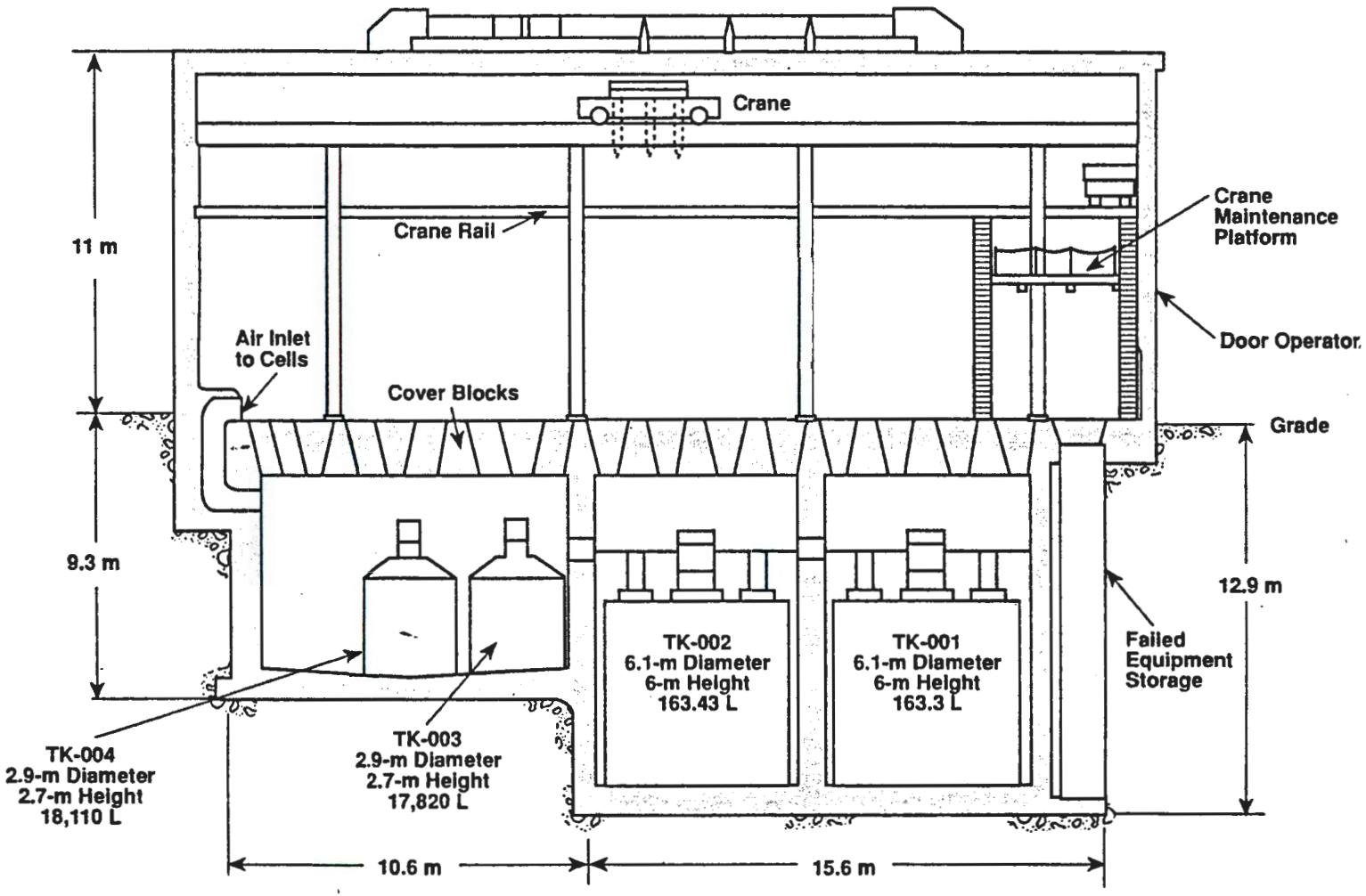
Liters to gallons - divide liters by 3.785
Meters to feet - divided meters by 0.3048
Centimeters to inches - divide centimeters by 2.54

244-AR Vault
Site Plan



39208044.14

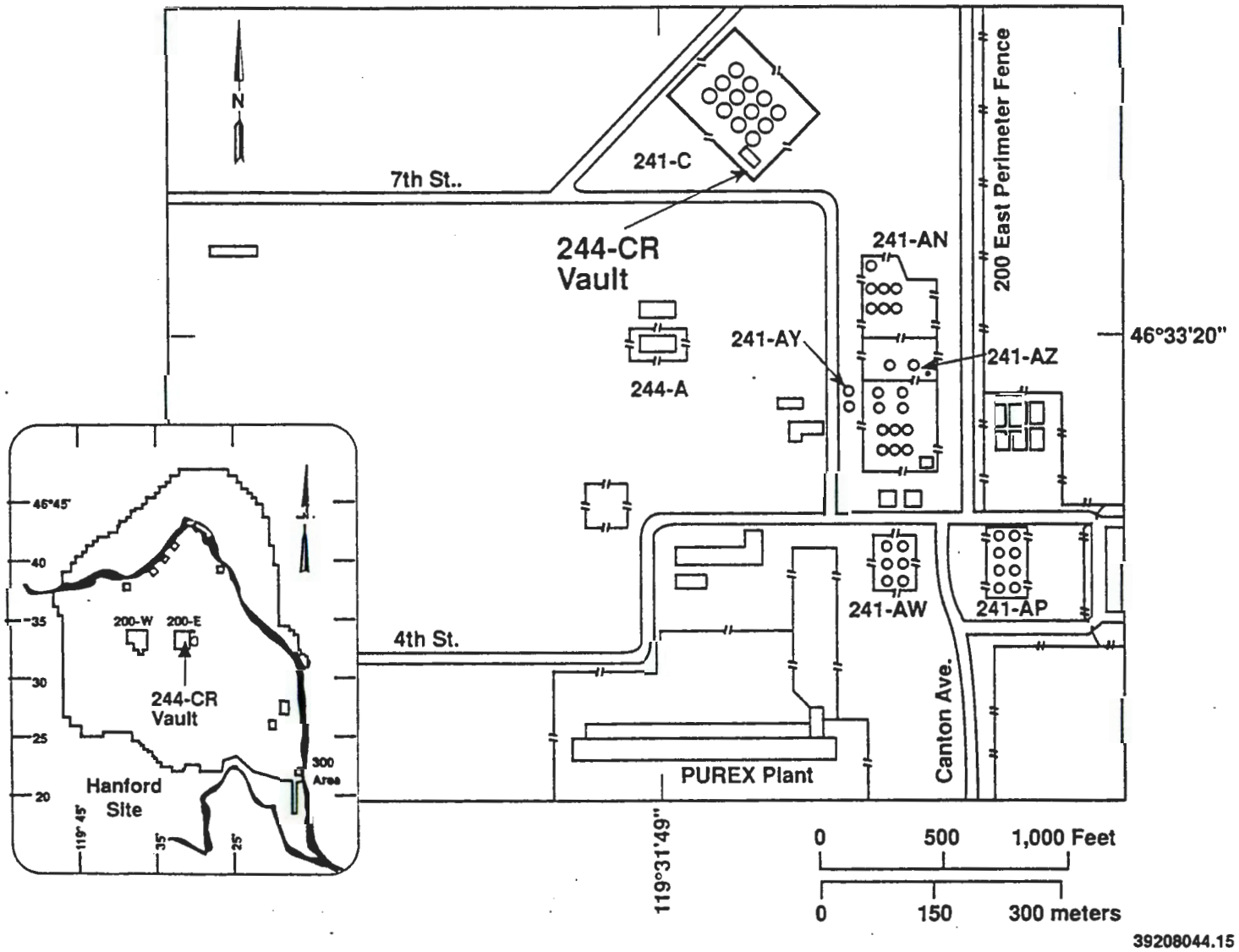
244-AR Vault



For conversions, apply the following:

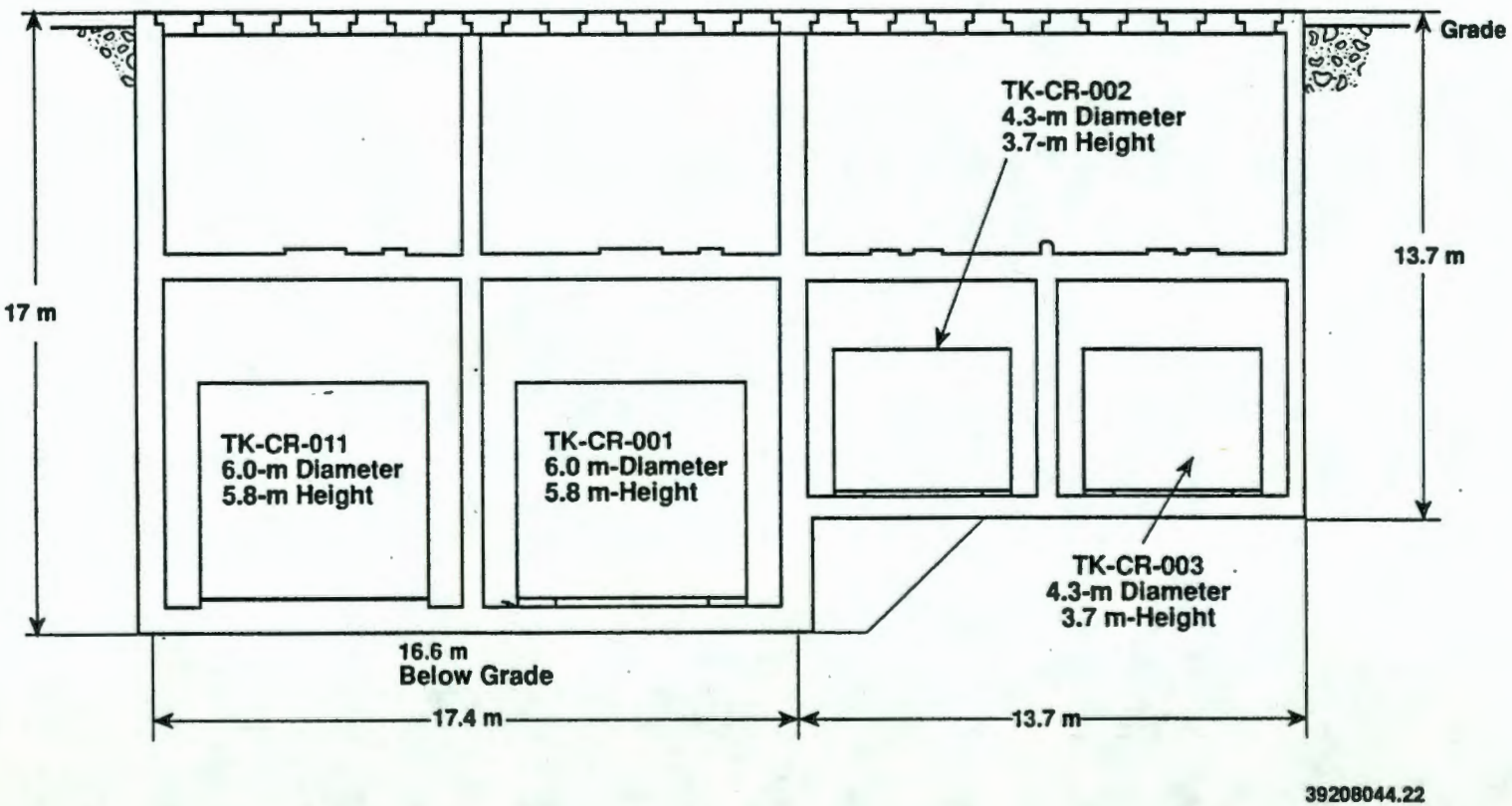
Liters to gallons - divide liters by 3.785
Meters to feet - divide meters by 0.3048
Centimeters to inches - divide centimeters by 2.54

244-CR Vault
Site Plan



39208044.15

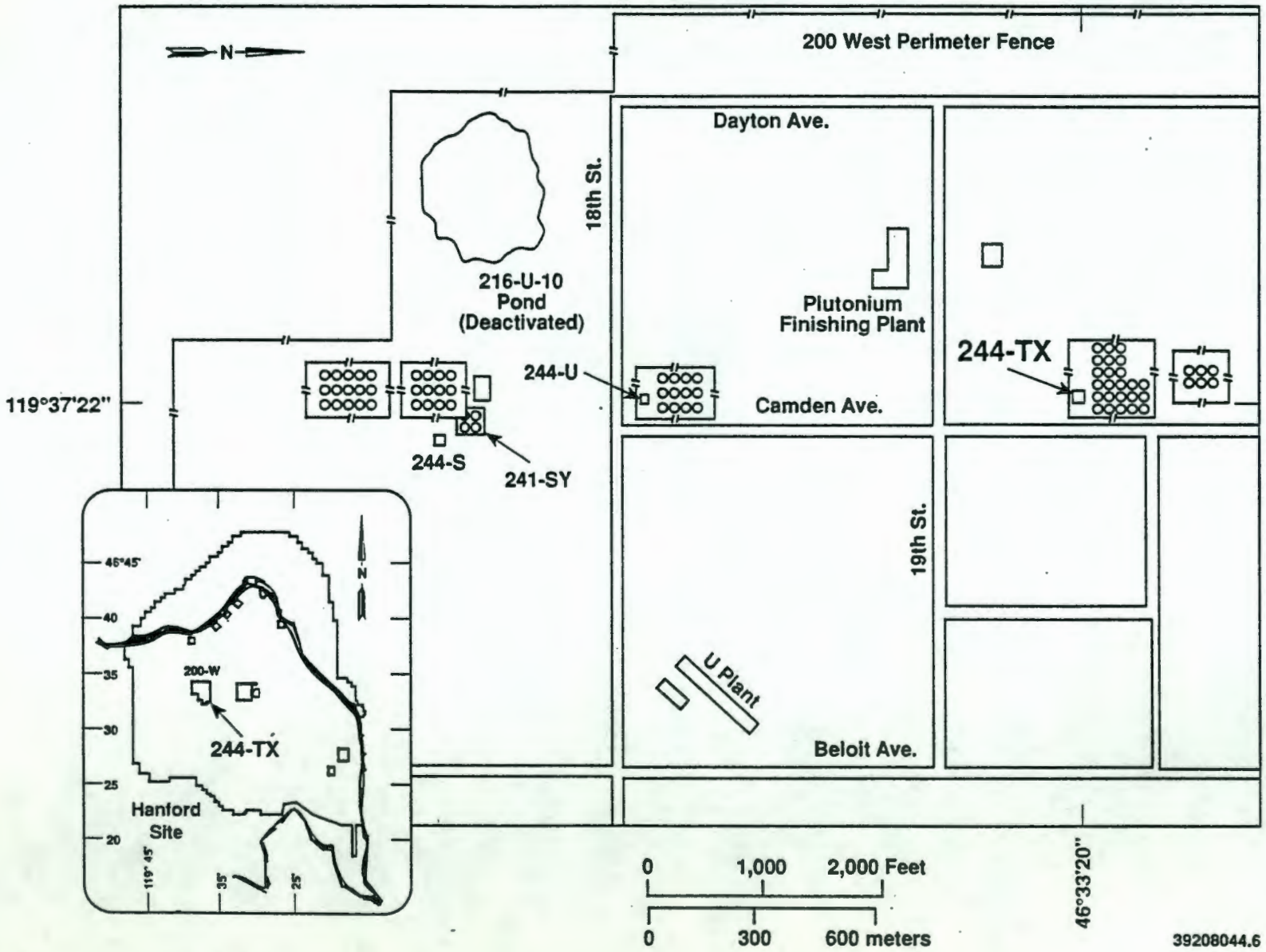
244-CR Vault



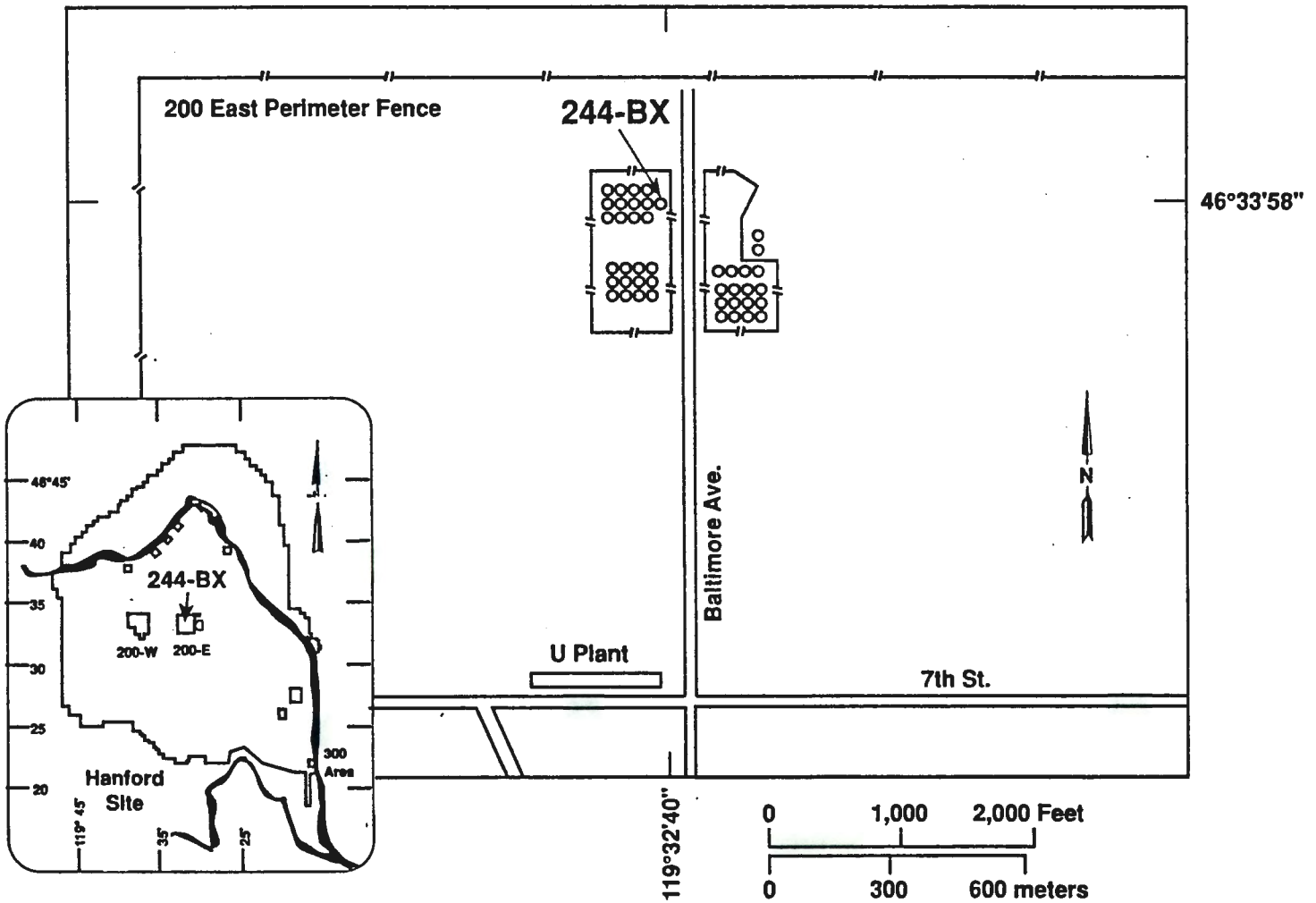
For conversions, apply the following:

Liters to gallons - divide liters by 3.785
Meters to feet - divide meters by 0.3048
Centimeters to inches - divide centimeters by 2.54

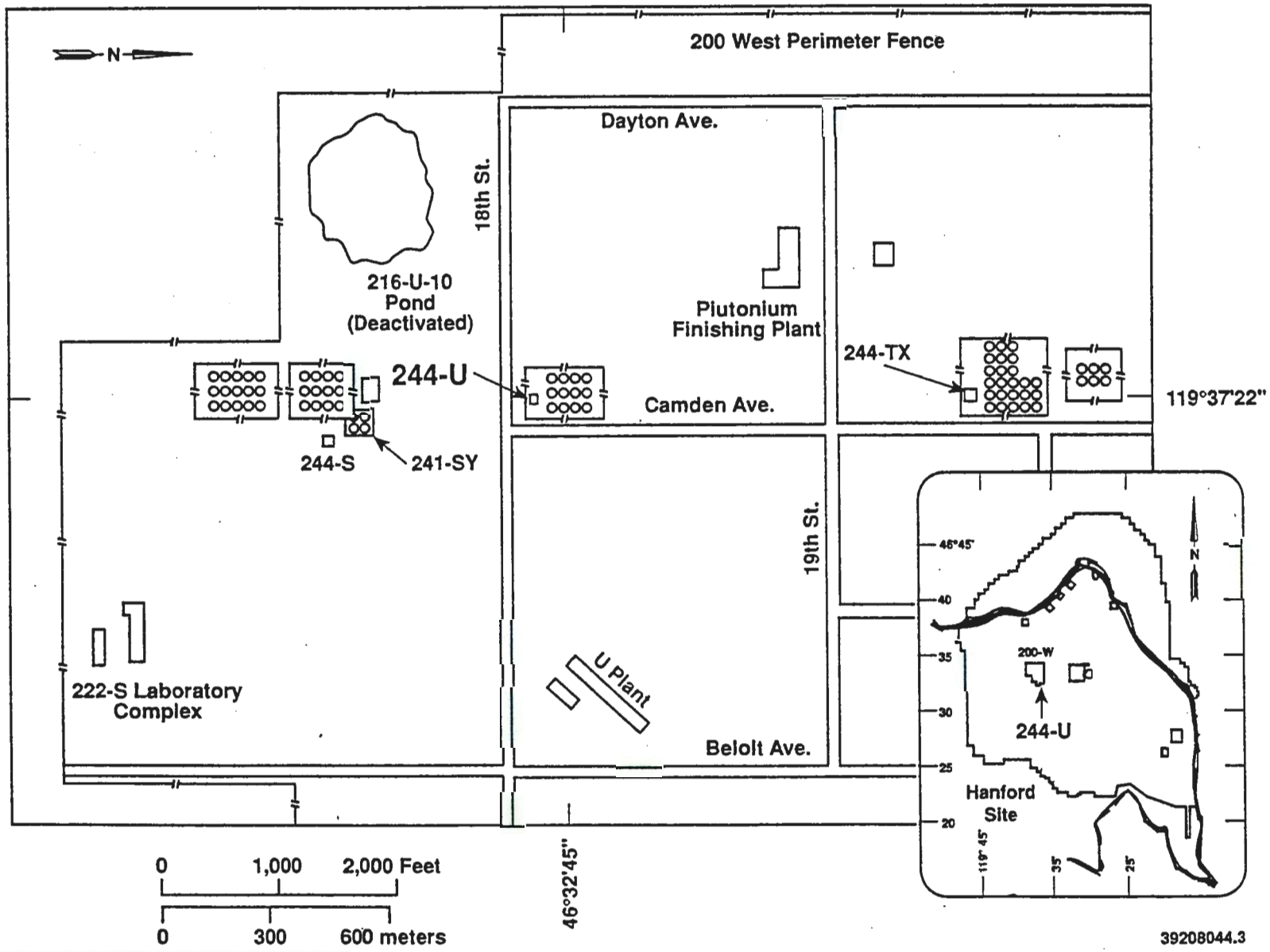
244-TX Double Contained Receiver Tank
Site Plan



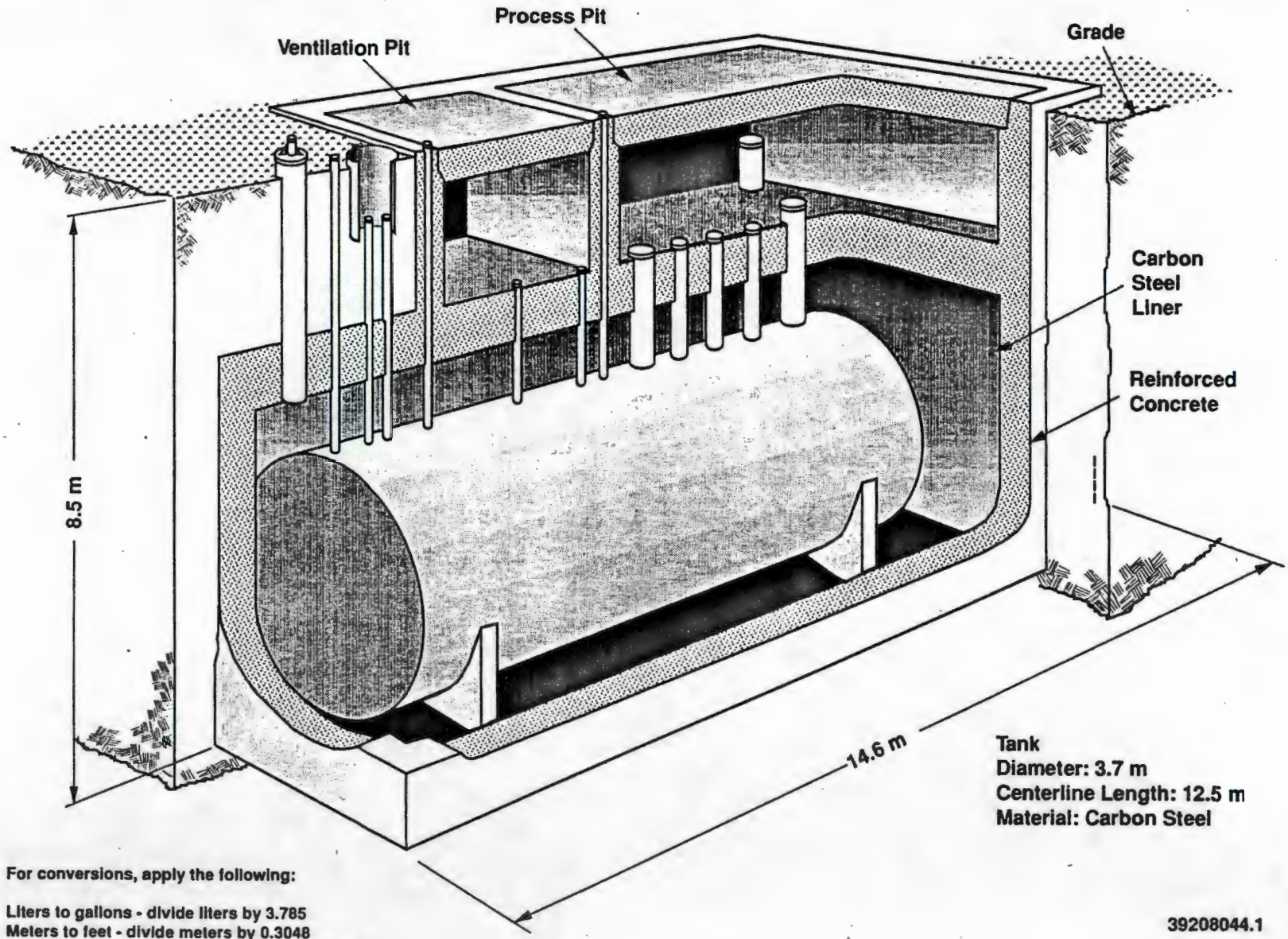
244-BX Double Contained Receiver Tank
Site Plan



244-U Double Contained Receiver Tank
Site Plan



TYPICAL DOUBLE CONTAINED RECEIVER TANK



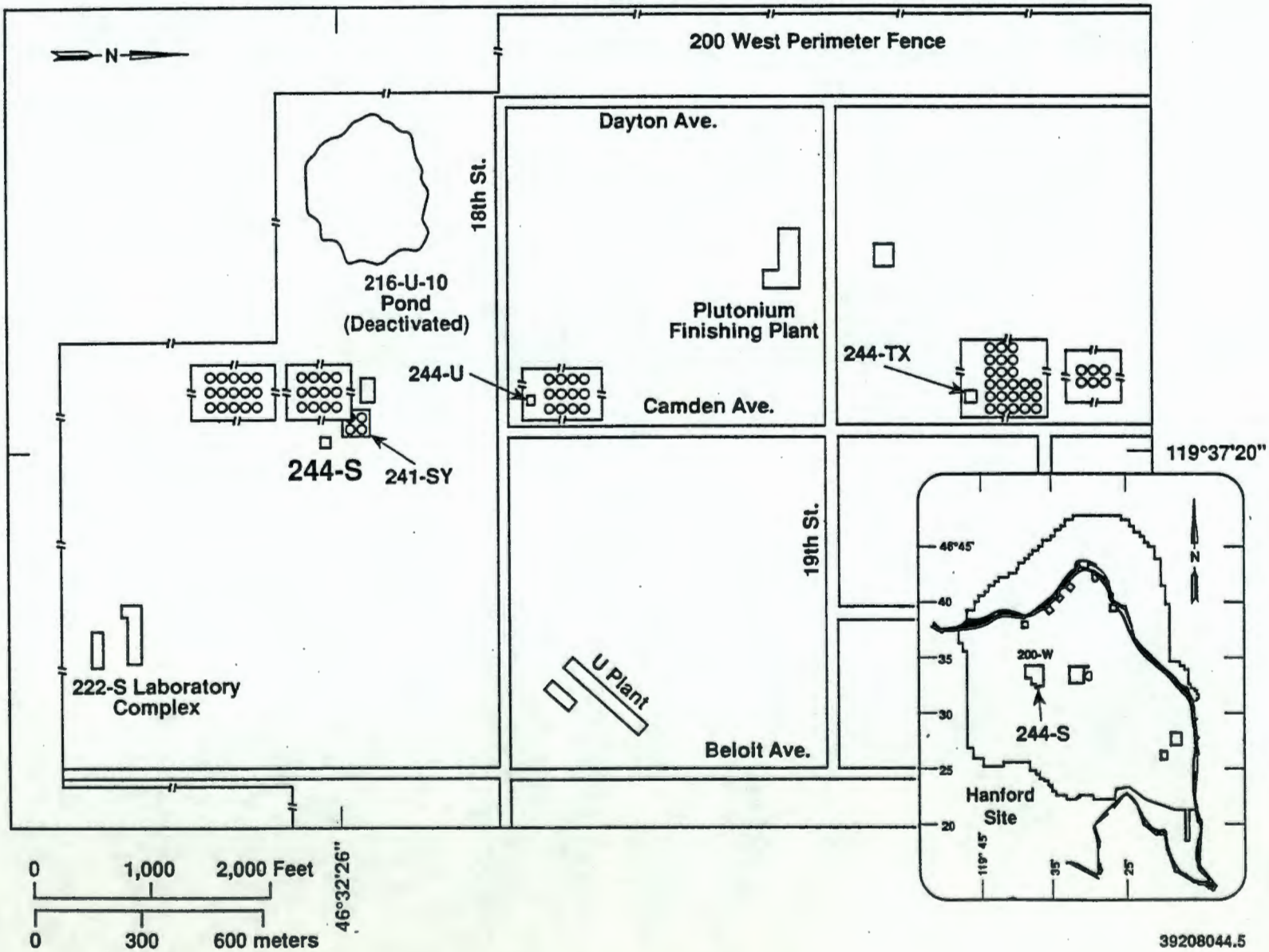
Tank
Diameter: 3.7 m
Centerline Length: 12.5 m
Material: Carbon Steel

39208044.1

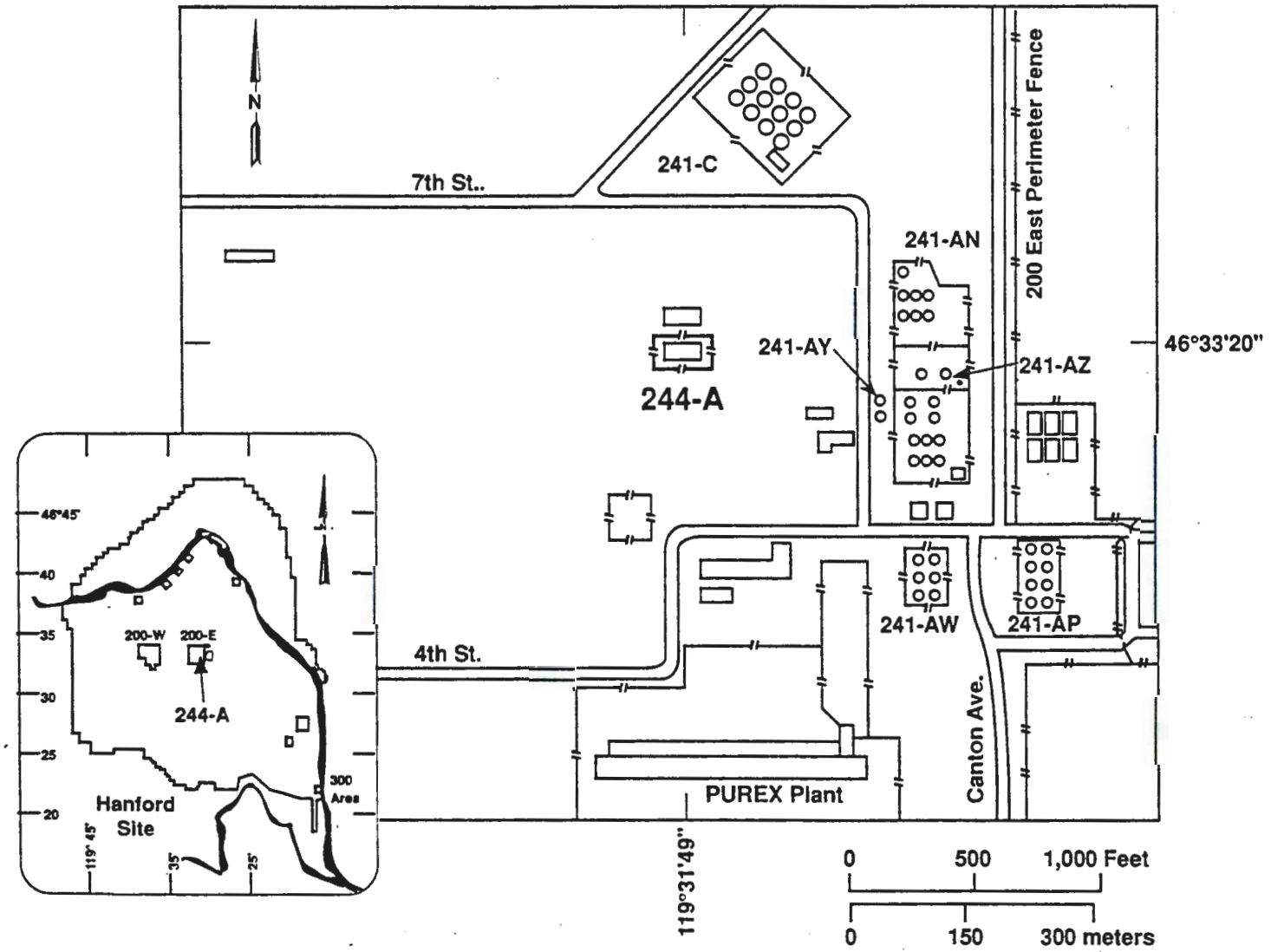
For conversions, apply the following:

Liters to gallons - divide liters by 3.785
Meters to feet - divide meters by 0.3048
Centimeters to inches - divide centimeters by 2.54

244-S Double Contained Receiver Tank
Site Plan

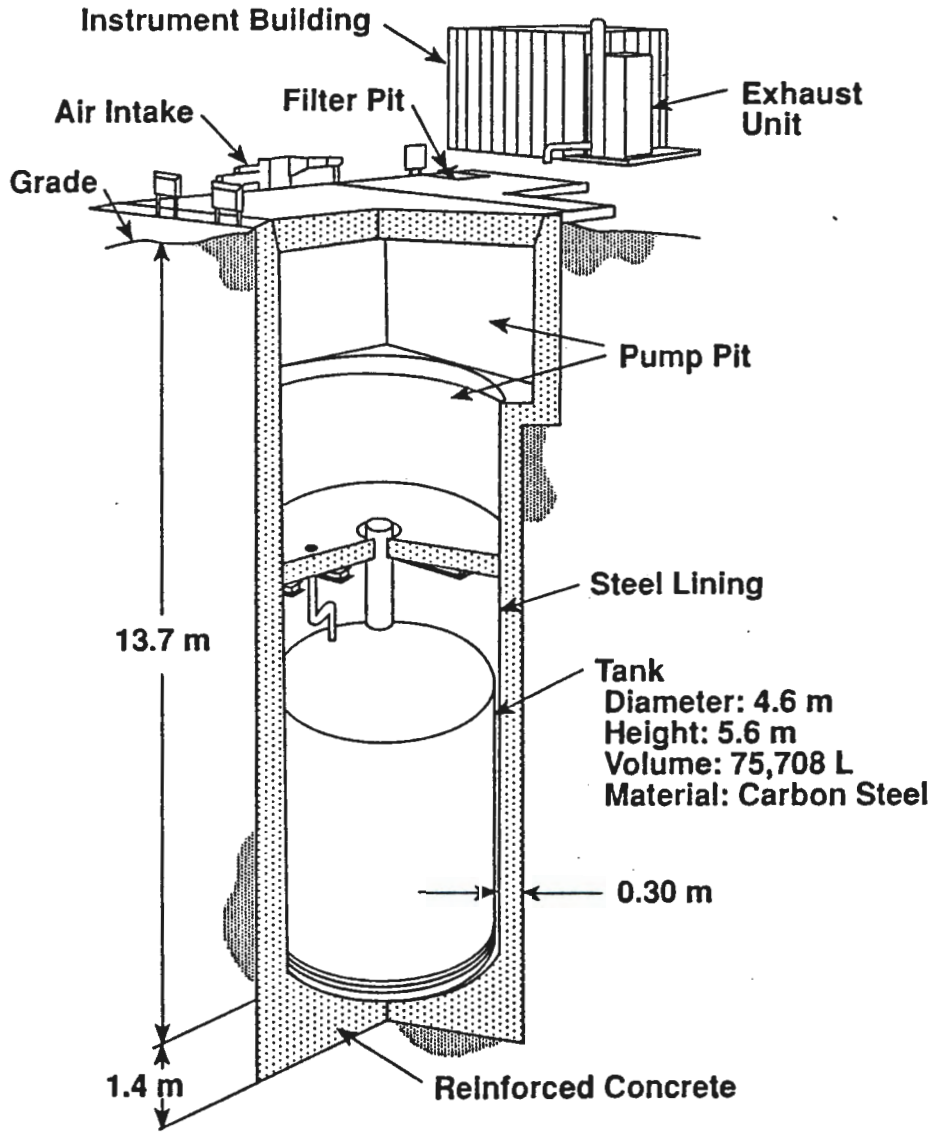


244-A Double Contained Receiver Tank
Site Plan



39208044.16

Typical Double-Contained Receiver Tank

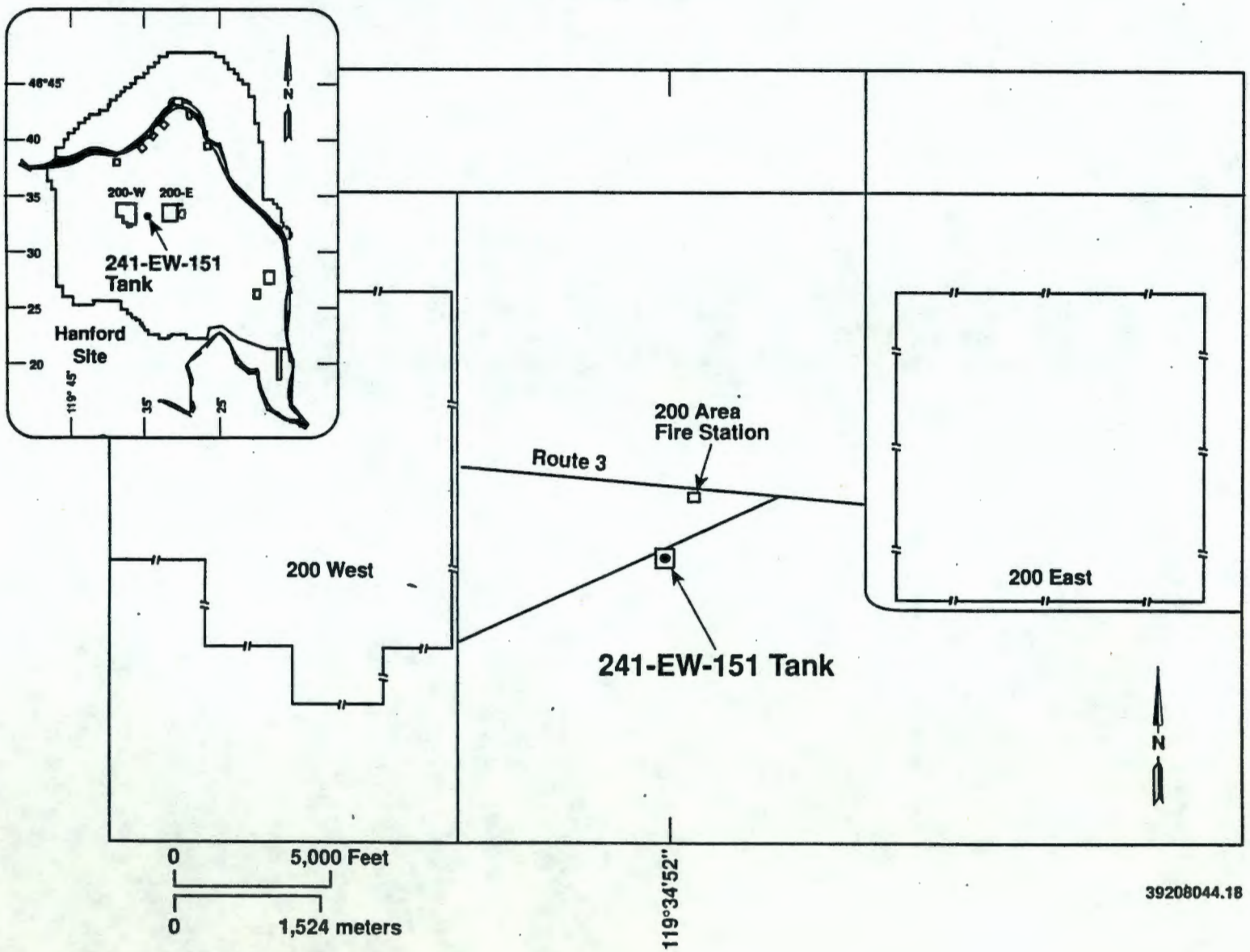


39208044.21

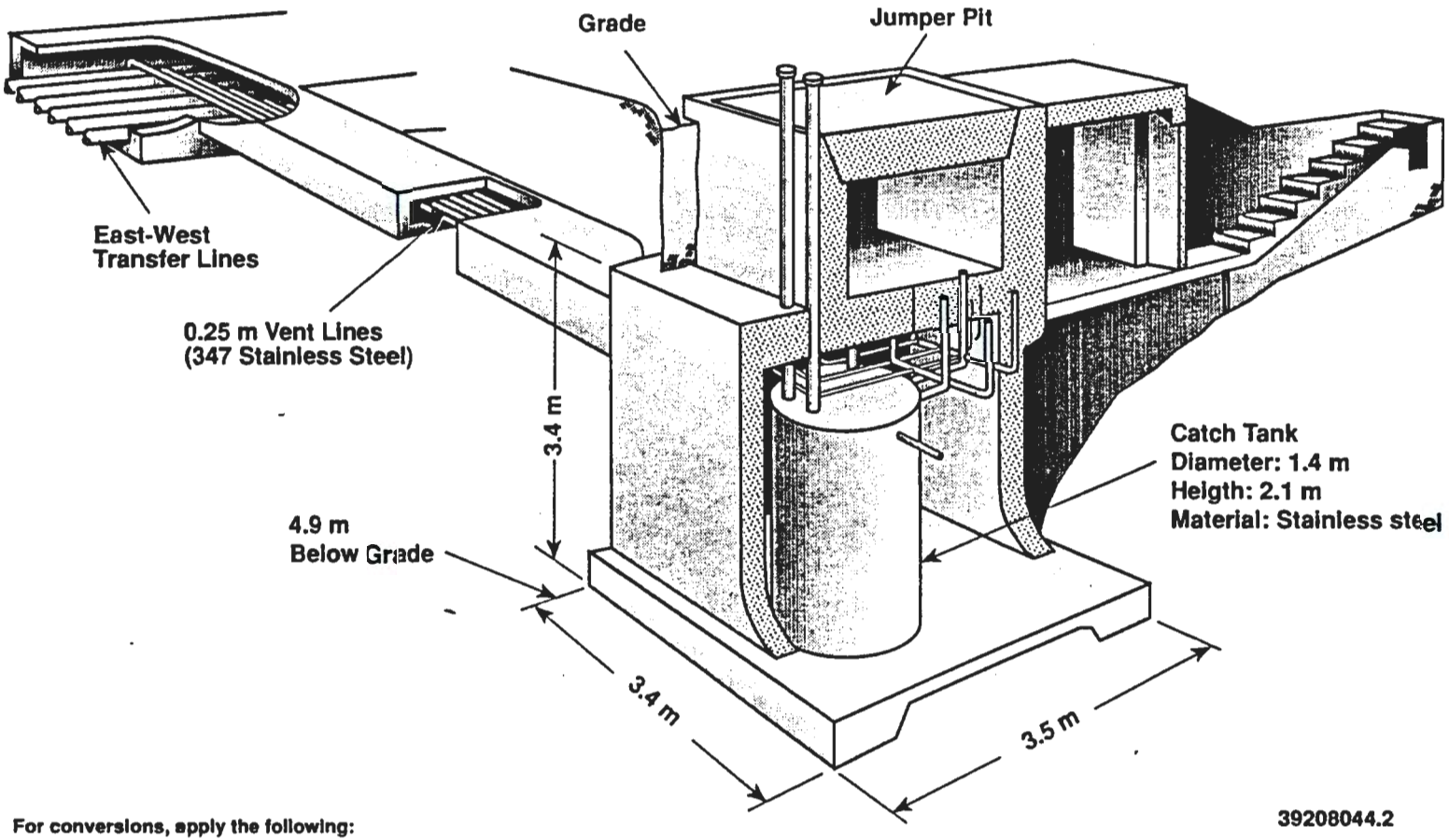
For conversions, apply the following:

Liters to gallons - divide liters by 3.785
Meters to feet - divide meters by 0.3048
Centimeters to inches - divide centimeters by 2.54

241-EW-151 Tank
(200 Area East-West Vent Station)
Site Plan



241-EW-151 TANK
(200 AREA EAST-WEST VENT STATION)



39208044.2

For conversions, apply the following:

Liters to gallons - divide liters by 3.785
Meters to feet - divide meters by 0.3048
Centimeters to inches - divide centimeters by 2.54

241-AN DOUBLE-SHELL TANK

46°33'25"
119°31'37"

8704135-8CN
(PHOTO TAKEN 1987)

9 3 1 2 9 3 9 1 7 1 1

241-AP DOUBLE-SHELL TANK

46°33'7"
119°31'38"

8704135-12CN
(PHOTO TAKEN 1987)

9 3 1 2 9 3 9 1 7 1 2

241-AW DOUBLE-SHELL TANK

46°33'7"
119°31'35"

8704135-11CN
(PHOTO TAKEN 1987)

9 3 1 2 9 7 9 1 7 1 3

241-SY DOUBLE-SHELL TANK

46°32'27"
119°37'21"

8704135-2CN
(PHOTO TAKEN 1987)

9 3 1 2 9 7 9 1 7 1 4

241-AY AGING WASTE DOUBLE-SHELL TANK

46°33'17"
119°31'39"

8704135-10CN
(PHOTO TAKEN 1987)

9312916715

241-AZ AGING WASTE DOUBLE-SHELL TANK

46°33'19"
119°31'35"

8704135-9CN
(PHOTO TAKEN 1987)

9 3 1 2 9 7 9 1 7 1 6

244-AR VAULT

46°33'13"
119°31'45"

8704135-16CN
(PHOTO TAKEN 1987)

9312917117

244-CR VAULT

46°33'26"
119°31'47"

8704135-14CN
(PHOTO TAKEN 1987)

9312937917 18

244-TX DOUBLE-CONTAINED RECEIVER TANK

46°33'20"
119°37'22"

8704135-7CN
(PHOTO TAKEN 1987)

9312916119

244-BX DOUBLE-CONTAINED RECEIVER TANK

46°33'58"
119°32'40"

8704135-18CN
(PHOTO TAKEN 1987)

9 3 1 2 9 3 9 1 7 2 0

244-U DOUBLE-CONTAINED RECEIVER TANK

46°32'45"
119°37'22"

8704135-4CN
(PHOTO TAKEN 1987)

9 3 1 2 9 3 9 1 7 2 1

244-S DOUBLE-CONTAINED RECEIVER TANK

46°32'26"
119°37'20"

8704433-2CN
(PHOTO TAKEN 1987)

9 1 1 2 9 7 9 1 7 2 2

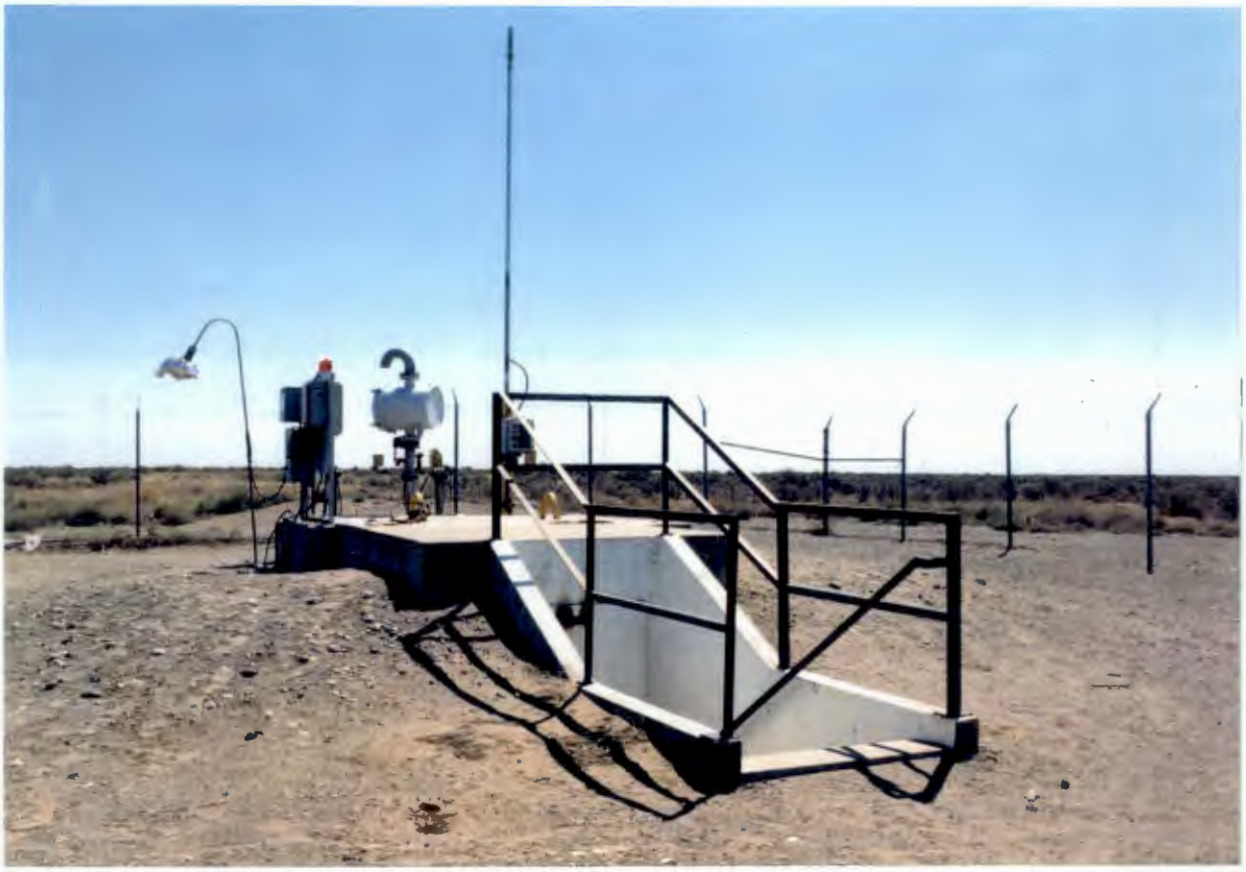
244-A DOUBLE-CONTAINED RECEIVER TANK

46°33'20"
119°31'49"

8704433-15CN
(PHOTO TAKEN 1987)

9 3 1 2 9 3 9 1 7 2 3

241-EW-151 TANK



46°32'46"
119°34'52"

8704433-17CN
(PHOTO TAKEN 1987)

9 3 1 2 9 7 9 1 7 2 4

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

FORM 3

DANGEROUS WASTE PERMIT APPLICATION

1. EPA/STATE I.D. NUMBER: W A 7 8 9 0 0 0 8 9 8 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. 0 1 | DAY | YR. 5 2 — FOR EXISTING FACILITIES, PROVIDE THE DATE *(mo., day, & yr.)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to 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 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. 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 2	48,000	G		*7*				
2	T 0 4	3,000	U		*8*				
3	S 0 1	40,000	G		*9*				
4					*10*				

CONTINUE ON REVERSE

9 3 1 2 9 9 1 7 2 5

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.

S02 T04 S01

The Hexone Storage and Treatment Facility (HSTF) is located in the southeast corner of the 200 West Area of the Hanford Facility. The HSTF consists of two 24,000 gallon (91,000 liter) belowgrade carbon steel tanks--276-S-141 (S-141) and 276-S-142 (S-142), a distillation system, and railroad tank cars. The HSTF received liquid mixed waste from the Reduction/Oxidation (REDOX) Plant and possibly the Hot Semiworks Plant. The HSTF was used from 1951 through 1967 to store reagent-grade methyl isobutyl ketone (hexone) for makeup as a solvent for the REDOX Plant. After 1967, the HSTF contained distilled hexone, part or all of which had been used in the REDOX Plant. The S-142 tank also contained normal paraffin hydrocarbon (NPH) and tributyl phosphate (TBP) from a one-time campaign to separate americium, curium, and promethium from Shippingport reactor blanket fuel in 1966. Approximately 200 gallons (760 liters) of water was added to the S-141 tank in 1988. The S-142 tank received approximately 1,300 gallons (5,000 liters) of water in 1967, 500 gallons (1,900 liters) in the mid-1970's, and 200 gallons (760 liters) in the mid-1980's. The combined storage design capacities of the Tanks (S-141 and S-142) is 48,000 gallons (182,000 liters) (S02). The treatment design capacity of the distillation system was 3,000 gallons (11,400 liters) of waste per day (T04). The storage design capacity of the railroad tank cars was 40,000 gallons (152,000 liters) (S01).

The mixed waste was pumped from the S-141 and S-142 tanks through a distillation system to decrease the radioactivity of the waste. The distilled waste was sent to temporary storage in railroad tank cars located within the HSTF, until completion of transfers to an offsite incinerator in June of 1992. Three distillation vessels containing process residue have been sampled and are stored at the Hanford Site as mixed waste. The S-141 and S-142 tanks currently each contain up to 5 to 30 gallons (19 to 114 liters) of liquid mixed waste containing 93% NPH and 7% hexone and up to 250 gallons (950 liters) of phosphate tar. The phosphate tar will be stored at the Hanford Site as mixed waste. The railroad tank cars have been emptied, cleaned, and moved to another onsite location. The HSTF is being closed under interim status.

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

9 3 1 2 9 9 1 7 2 6

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

I.D. NUMBER *(entered from page 1)*: 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	245,400	P	S02 T04 S01	Storage-Tank/Treatment-Other-
2	F003				Distillation/Storage-Container
3	WC02				
4	WT02				Included with above
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

9312291727

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 S-141 tank was used to store waste hexone (F003) that was used as a solvent in the REDOX Plant. The mixed waste was considered ignitable (D001) and a toxic state-only waste (WT02, dangerous waste). The estimated annual quantity of waste that was treated and stored in the S-141 tank was approximately 20,000 gallons (76,000 liters).

The S-142 tank also was used to store waste hexone. In addition, the S-142 tank also stored waste NPH and TBP. This mixture was designated F003, D001, WT02, and a carcinogenic state-only waste (WC02, dangerous waste). These wastes resulted from a one-time campaign to separate americium, curium, and promethium from Shippingport reactor blanket fuel in 1966. The estimated annual quantity of waste that was treated and stored in the S-142 tank was approximately 16,000 gallons (61,000 liters).

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 the 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
John D. Wagoner, Manager U.S. Department of Energy Richland Field Office	John D. Wagoner	11/18/92

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

9312291728

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 D. Wagoner

Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
Richland Field Office

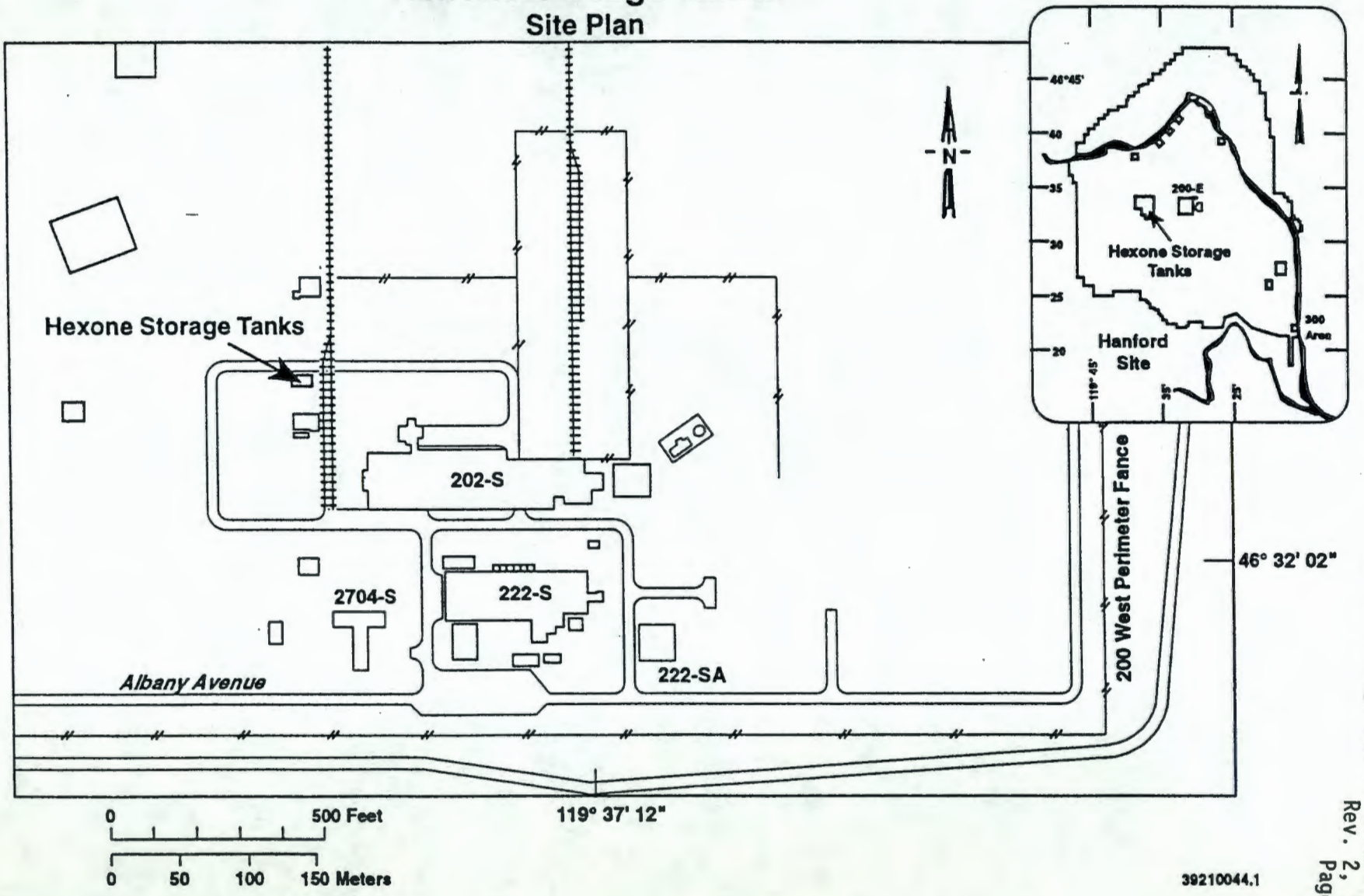
11/18/92
Date

Thomas M. Anderson

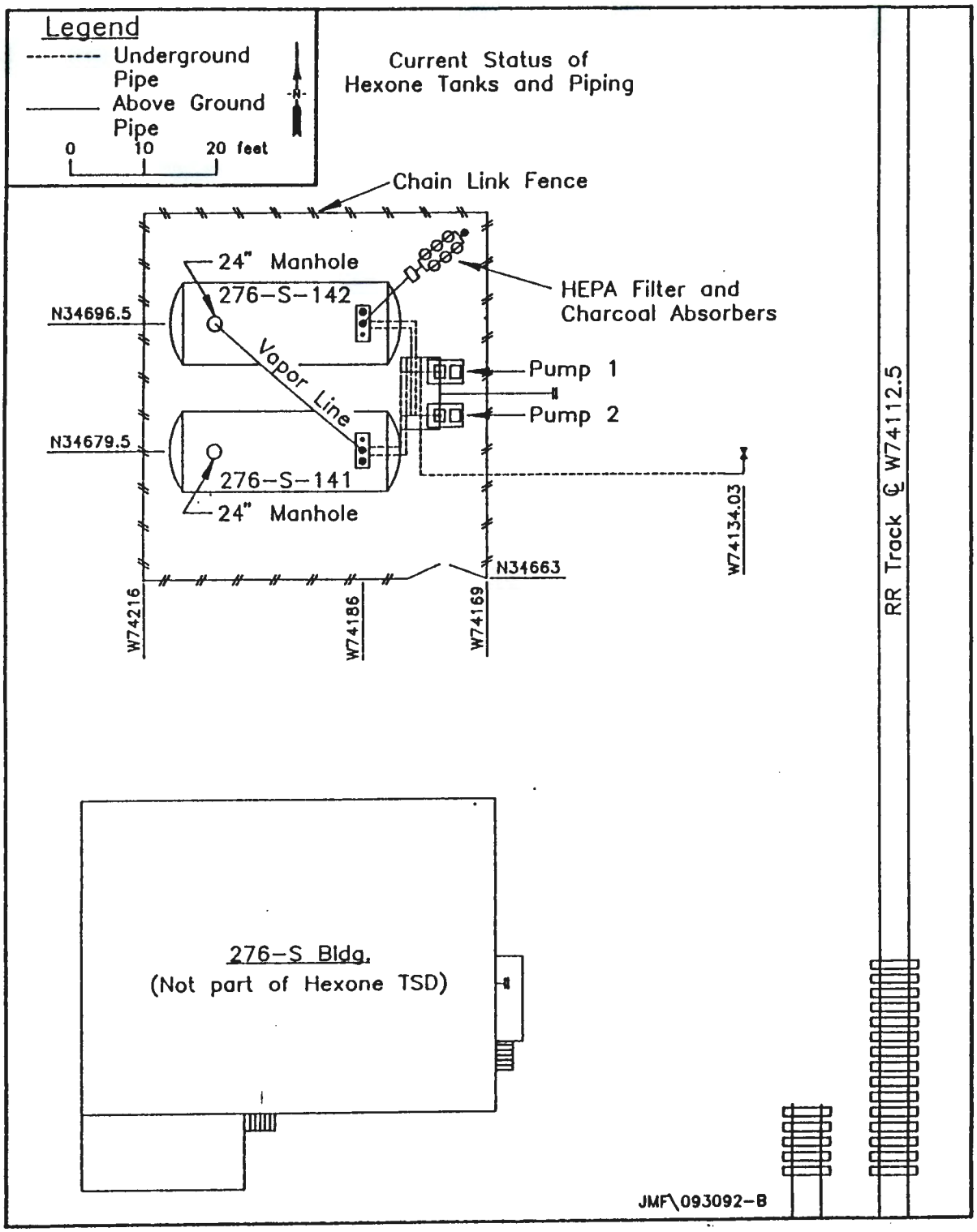
Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

10-30-92
Date

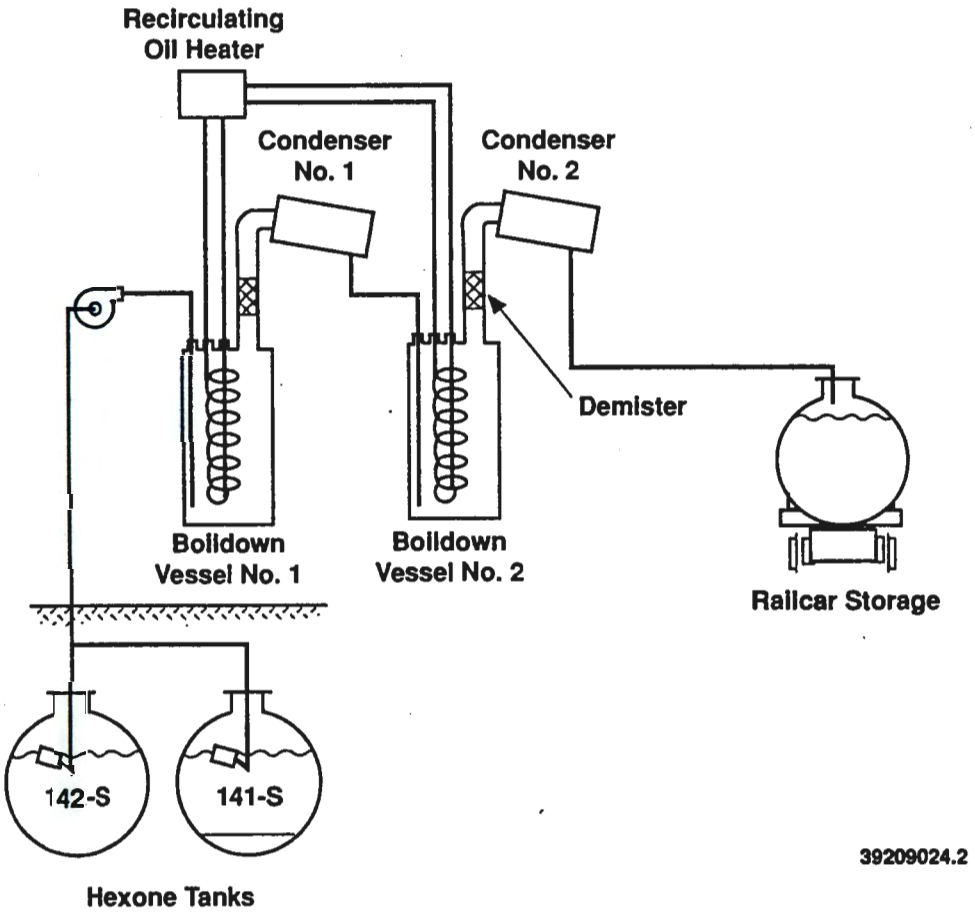
276-S-141 and 142
Hexone Storage Tanks
Site Plan



Hexone Storage Tanks



Hexone Treatment System Schematic



276-S-141 AND 142
HEXONE STORAGE TANKS

46°32'08"
119°37'23"

8706421-7CN
(PHOTO TAKEN 1987

9 3 1 2 9 3 9 1 7 3 3

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.)*

MO 0 9 | DAY | YR 8 5 — FOR EXISTING FACILITIES, PROVIDE THE DATE *(mo., day, & yr.)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to 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
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
X-1	S 0 2	600	G	
X-2	T 0 3	20	E	
1	S 0 1	110,000	G	
2				
3				
4				

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
5				
6				
7				
8				
9				
10				

9 3 1 2 9 9 1 7 3 4

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.

S01

The 224-T Transuranic Waste Storage and Assay Facility (224-T TRUSAF) is located southeast of T Plant in the 200 West Area of the Hanford Facility. The 224-T TRUSAF provides a centralized storage unit for storage of transuranic mixed waste and low-level mixed waste from various Hanford Facility operations and from other U.S. Department of Energy and U.S. Department of Defense facilities. The transuranic mixed waste will be prepared for transfer to and disposal at the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico or at another approved disposal site. The 224-T TRUSAF also will store retrieved containers of transuranic mixed waste from the Low-Level Burial Grounds (LLBG). The LLBG transuranic mixed waste will be retrieved for characterization and reprocessing in the Waste Receiving and Processing Facility to be located on the Hanford Facility. Assay of the waste consists of nondestructive testing of the transuranic mixed waste and low-level mixed waste to confirm the fissile isotope content and the absence of prohibited items before shipment to the WIPP or to another approved disposal site. The 224-T TRUSAF storage unit capacity is approximately 110,000 gallons (416,394 liters) [2,000 55-gallon (208-liter) 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 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)	B. PROCESSES 1. PROCESS CODES (enter)	B. 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

9 3 1 2 9 9 1 7 3 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): 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	500	P	S01	Storage - Container
2	D002	500			
3	D003	500			
4	D004	500			
5	D005	500			
6	D006	500			
7	D007	500			
8	D008	1,000			
9	D010	500			
10	D011	500			
11	D018	500			
12	D019	500			
13	D020	500			
14	D021	500			
15	D022	500			
16	D023	500			
17	D024	500			
18	D025	500			
19	D026	500			
20	D027	500			
21	D028	500			
22	D029	500			
23	D030	500			
24	D031	500			
25	D032	500			
26	D033	500			

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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	D034	500	P	S01				Storage - Container
2	D035	500						
3	D036	500						
4	D037	500						
5	D038	500						
6	D039	500						
7	D040	500						
8	D041	500						
9	D042	500						
10	D043	500						
11	F001	500						
12	F002	500						
13	F003	500						
14	F004	500						
15	F005	500						
16	F020	500						
17	F021	500						
18	F022	500						
19	F023	500						
20	F026	500						
21	F027	500						
22	F028	500						
23								
24								
25								
26								

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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 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	WT01	10,000	P	S01				Storage - Container
2	WT02	10,000						
3	WP01	8,000						
4	WP02	8,000						
5	WP03	8,000						
6	WC01	8,000						
7	WC02	8,000						
8								
9								
10								
11								
12								
13								
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26								

9 3 1 2 9 9 1 7 3 8

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	U001	500	P	S01				Storage - Container
2	U002	500						
3	U003	500						
4	U004	500						
5	U005	500						
6	U006	500						
7	U007	500						
8	U008	500						
9	U009	500						
10	U010	500						
11	U011	500						
12	U012	500						
13	U013	500						
14	U014	500						
15	U015	500						
16	U016	500						
17	U017	500						
18	U018	500						
19	U019	500						
20	U020	500						
21	U021	500						
22	U022	500						
23	U023	500						
24	U024	500						
25	U025	500						
26	U026	500						

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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	U027	500	P	S01	Storage - Container
2	U028	500			
3	U029	500			
4	U030	500			
5	U031	500			
6	U032	500			
7	U033	500			
8	U034	500			
9	U035	500			
10	U036	500			
11	U037	500			
12	U038	500			
13	U039	500			
14	U041	500			
15	U042	500			
16	U043	500			
17	U044	500			
18	U045	500			
19	U046	500			
20	U047	500			
21	U048	500			
22	U049	500			
23	U050	500			
24	U051	500			
25	U052	500			
26	U053	500			

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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)				2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	U055	500	P	S01				Storage - Container
2	U056	500						
3	U057	500						
4	U058	500						
5	U059	500						
6	U060	500						
7	U061	500						
8	U062	500						
9	U063	500						
10	U064	500						
11	U065	500						
12	U066	500						
13	U067	500						
14	U068	500						
15	U069	500						
16	U070	500						
17	U071	500						
18	U072	500						
19	U073	500						
20	U074	500						
21	U075	500						
22	U076	500						
23	U077	500						
24	U078	500						
25	U079	500						
26	U080	500						

9 3 1 2 9 9 1 7 4 1

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	U081	500	P	S01				Storage - Container
2	U082	500						
3	U083	500						
4	U084	500						
5	U085	500						
6	U086	500						
7	U087	500						
8	U088	500						
9	U089	500						
10	U090	500						
11	U091	500						
12	U092	500						
13	U093	500						
14	U094	500						
15	U095	500						
16	U096	500						
17	U097	500						
18	U098	500						
19	U101	500						
20	U102	500						
21	U107	500						
22	U108	500						
23	U112	500						
24	U113	500						
25	U116	500						
26	U117	500						

9 3 1 2 9 9 1 7 4 2

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 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	U118	500	P	S01				Storage - Container
2	U119	500						
3	U120	500						
4	U123	500						
5	U124	500						
6	U134	500						
7	U136	500						
8	U137	500						
9	U139	500						
10	U140	500						
11	U145	500						
12	U146	500						
13	U148	500						
14	U149	500						
15	U150	500						
16	U151	500						
17	U152	500						
18	U153	500						
19	U154	500						
20	U155	500						
21	U156	500						
22	U157	500						
23	U158	500						
24	U159	500						
25	U160	500						
26	U161	500						

9 3 1 2 9 9 1 7 4 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	U162	500	P	S01	Storage - Container
2	U163	500			
3	U164	500			
4	U165	500			
5	U166	500			
6	U167	500			
7	U168	500			
8	U169	500			
9	U170	500			
10	U171	500			
11	U172	500			
12	U173	500			
13	U174	500			
14	U175	500			
15	U176	500			
16	U177	500			
17	U178	500			
18	U179	500			
19	U180	500			
20	U181	500			
21	U182	500			
22	U183	500			
23	U184	500			
24	U185	500			
25	U186	500			
26	U187	500			

9 3 1 2 9 9 1 7 4 4

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	U188	500	P	S01	Storage - Container
2	U189	500			
3	U190	500			
4	U191	500			
5	U192	500			
6	U193	500			
7	U194	500			
8	U195	500			
9	U196	500			
10	U197	500			
11	U200	500			
12	U201	500			
13	U202	500			
14	U203	500			
15	U204	500			
16	U205	500			
17	U206	500			
18	U207	500			
19	U208	500			
20	U209	500			
21	U210	500			
22	U211	500			
23	U212	500			
24	U213	500			
25	U214	500			
26	U215	500			

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	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	U216	500	P	S01				Storage - Container
2	U217	500						
3	U218	500						
4	U219	500						
5	U220	500						
6	U221	500						
7	U222	500						
8	U223	500						
9	U224	500						
10	U225	500						
11	U226	500						
12	U227	500						
13	U228	500						
14	U230	500						
15	U231	500						
16	U232	500						
17	U233	500						
18	U234	500						
19	U235	500						
20	U236	500						
21	U237	500						
22	U238	500						
23	U239	500						
24	U240	500						
25	U241	500						
26	U242	500						

9 3 1 2 9 9 1 7 4 6

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): 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	U243	500	P	S01				Storage - Container
2	U244	500						
3	U245	500						
4	U246	500						
5	U247	500						
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								

9 3 1 2 9 9 1 7 4 7

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	P001	500	P	S01	Storage - Container
2	P002	500			
3	P003	500			
4	P004	500			
5	P005	500			
6	P006	500			
7	P007	500			
8	P008	500			
9	P009	500			
10	P010	500			
11	P011	500			
12	P012	500			
13	P013	500			
14	P014	500			
15	P015	500			
16	P016	500			
17	P017	500			
18	P018	500			
19	P020	500			
20	P021	500			
21	P022	500			
22	P023	500			
23	P024	500			
24	P025	500			
25	P026	500			
26	P027	500			

9 3 1 2 9 9 1 7 4 8

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	P028	500	P	S01	Storage - Container
2	P029	500			
3	P030	500			
4	P031	500			
5	P033	500			
6	P034	500			
7	P035	500			
8	P036	500			
9	P037	500			
10	P038	500			
11	P039	500			
12	P040	500			
13	P041	500			
14	P042	500			
15	P043	500			
16	P044	500			
17	P045	500			
18	P046	500			
19	P047	500			
20	P048	500			
21	P049	500			
22	P050	500			
23	P051	500			
24	P054	500			
25	P056	500			
26	P057	500			

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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	P058	500	P	S01	Storage - Container
2	P059	500			
3	P060	500			
4	P062	500			
5	P063	500			
6	P064	500			
7	P065	500			
8	P066	500			
9	P067	500			
10	P068	500			
11	P069	500			
12	P070	500			
13	P071	500			
14	P072	500			
15	P073	500			
16	P074	500			
17	P075	500			
18	P076	500			
19	P077	500			
20	P078	500			
21	P079	500			
22	P081	500			
23	P082	500			
24	P084	500			
25	P085	500			
26	P087	500			

9 3 1 2 9 9 1 7 5 0

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 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	P088	500	P	S01	Storage - Container
2	P089	500			
3	P092	500			
4	P093	500			
5	P094	500			
6	P095	500			
7	P096	500			
8	P097	500			
9	P098	500			
10	P099	500			
11	P101	500			
12	P102	500			
13	P103	500			
14	P104	500			
15	P105	500			
16	P106	500			
17	P107	500			
18	P108	500			
19	P109	500			
20	P110	500			
21	P111	500			
22	P112	500			
23	P113	500			
24	P114	500			
25	P115	500			
26					

9312916751

Continued from the front

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

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

The transuranic mixed waste and low-level mixed waste managed at the 224-T TRUSAF include waste generated from various Hanford Facility operations and from other U.S. Department of Energy and U.S. Department of Defense facilities. The potential transuranic mixed waste and low-level mixed waste managed could include waste from nonspecific sources, characteristic waste, toxicity characteristic waste, listed waste, and state-only waste (extremely hazardous and dangerous waste). The estimated annual quantity of waste is based on gross estimates of waste that could be stored at the 224-T TRUSAF.

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 the 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
John D. Wagoner, Manager United States Department of Energy DOE Richland Field Office	[signature]	6-24-92

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

9 3 1 2 9 9 1 7 5 2

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.

Owner/Operator
for John D. Wagoner, Manager
U.S. Department of Energy
DOE Richland Field Office

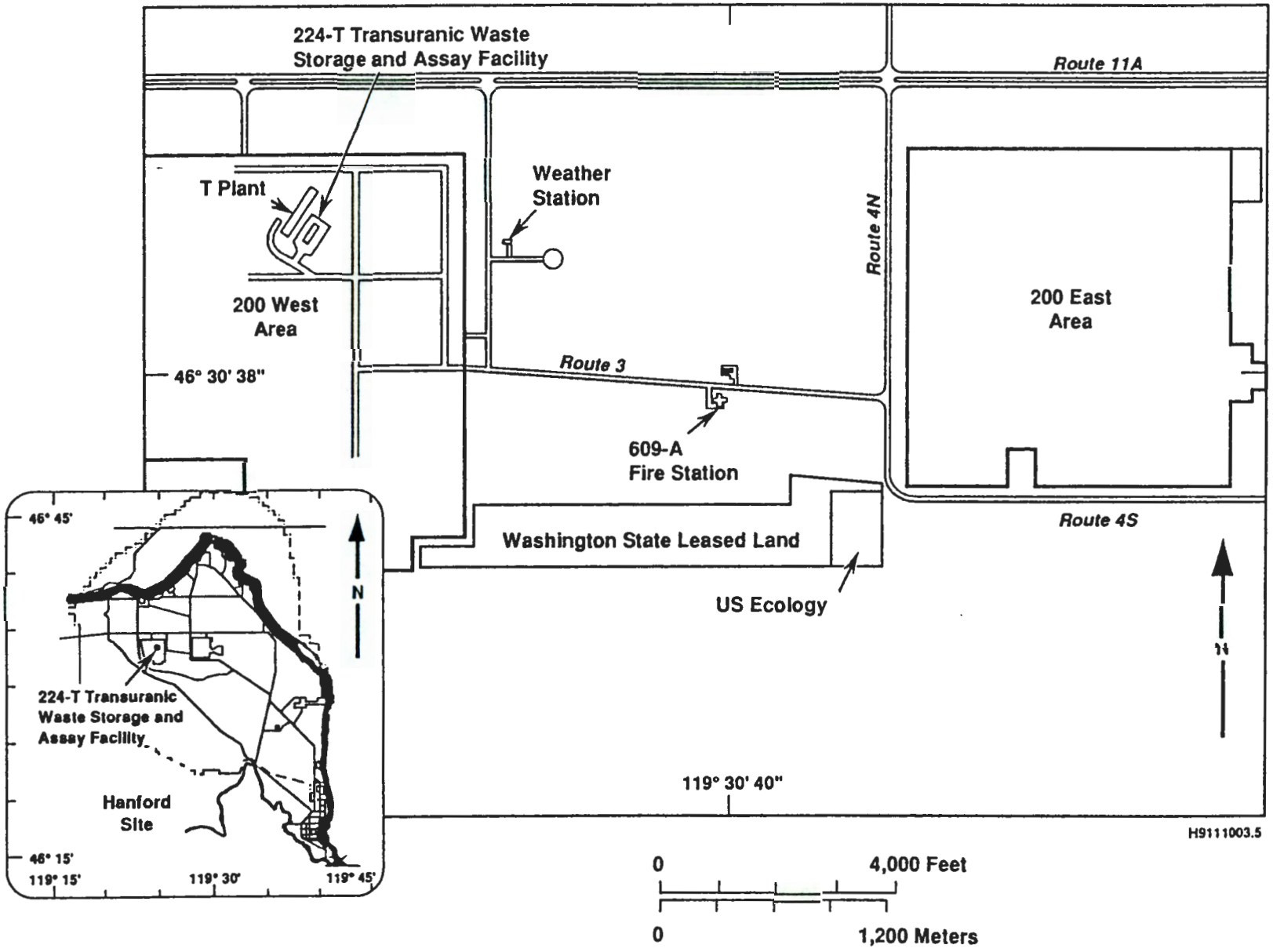
6-24-92
Date

Thomas M. Anderson
Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

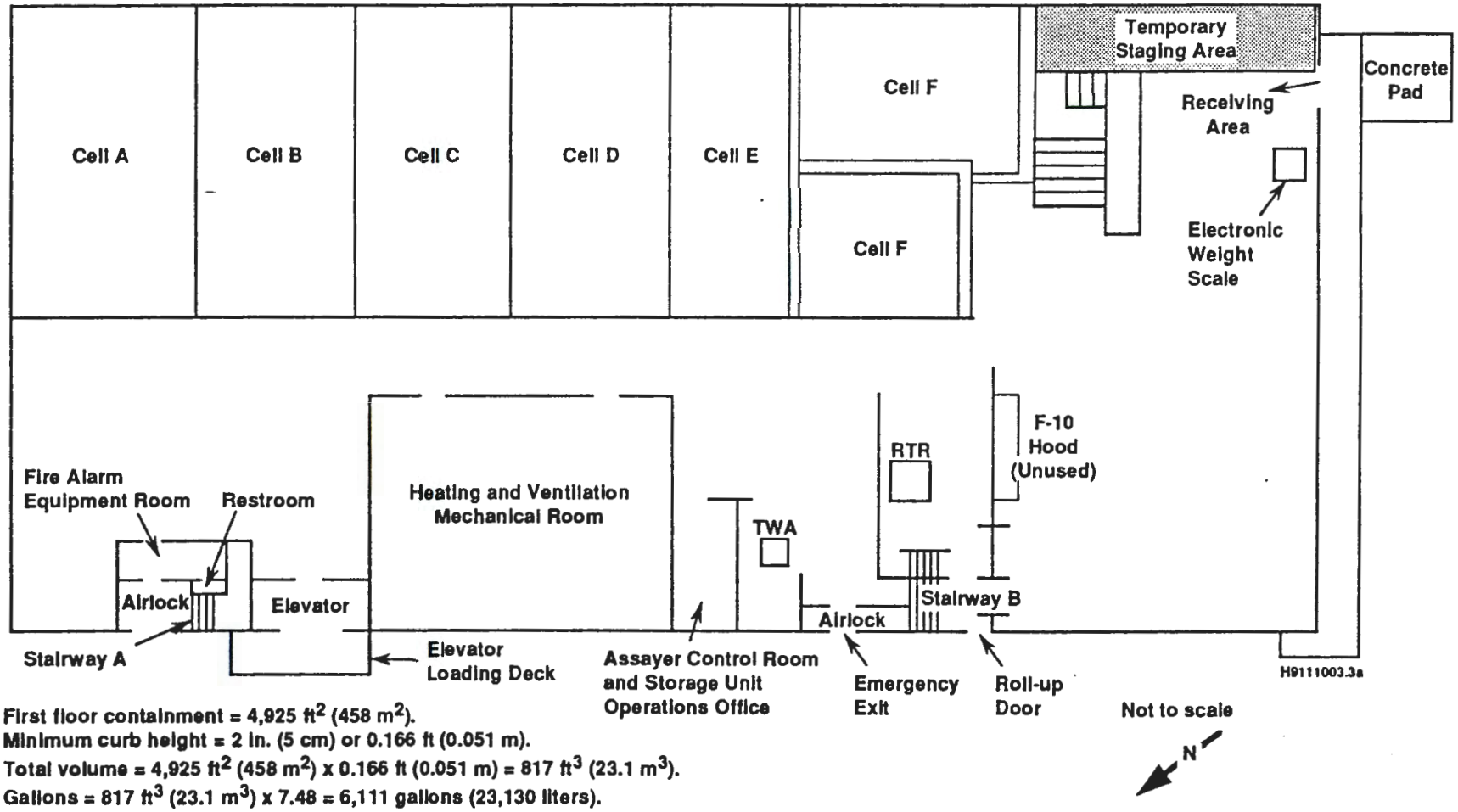
6/3/92
Date

9 1 9 9 1 7 3

224-T TRUSAF SITE PLAN



224-T TRUSAF - FIRST FLOOR



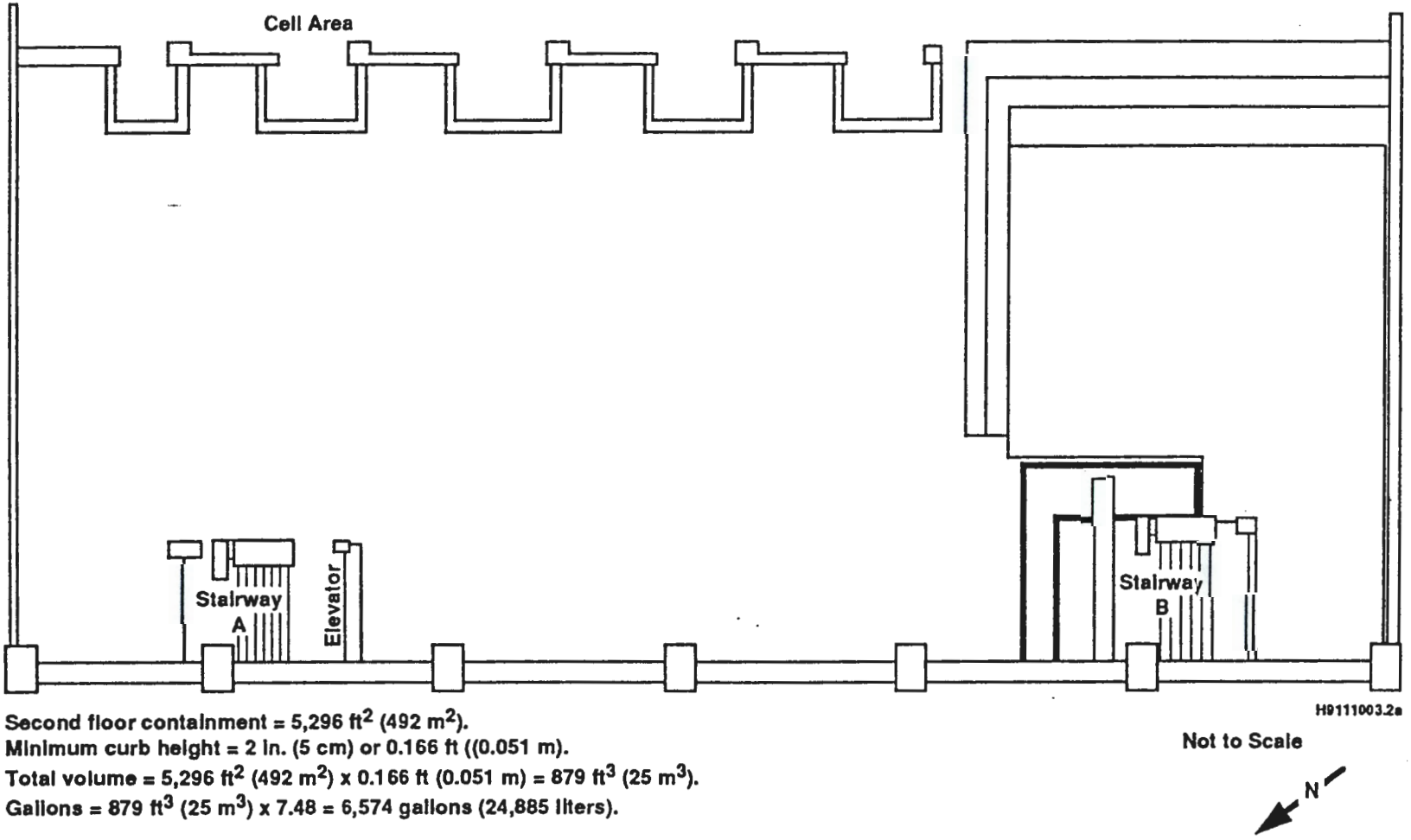
First floor containment = 4,925 ft^2 (458 m^2).
Minimum curb height = 2 in. (5 cm) or 0.166 ft (0.051 m).
Total volume = 4,925 ft^2 (458 m^2) x 0.166 ft (0.051 m) = 817 ft^3 (23.1 m^3).
Gallons = 817 ft^3 (23.1 m^3) x 7.48 = 6,111 gallons (23,130 liters).

Notes: Square feet = ft^2
Square meters = m^2
Cubic feet = ft^3
Cubic meters = m^3
Area in ft^2 (m^2)
Total volume in ft^3 (m^3)
Gallons = total volume x 7.48

TWA = transuranic waste assayer.

RTR = real-time radiography x-ray system.

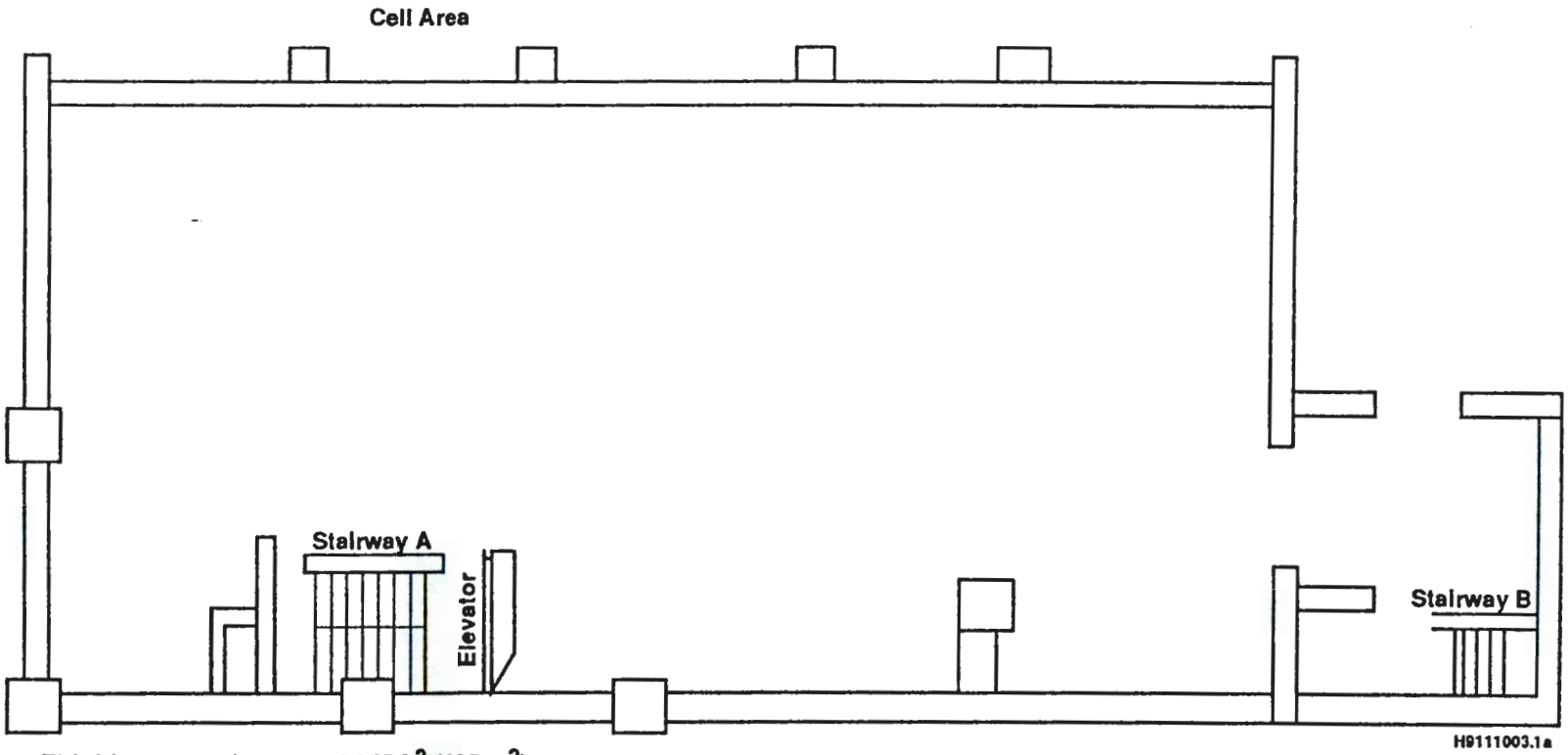
224-T TRUSAF - SECOND FLOOR



Second floor containment = 5,296 ft^2 (492 m^2).
Minimum curb height = 2 in. (5 cm) or 0.166 ft ((0.051 m).
Total volume = 5,296 ft^2 (492 m^2) x 0.166 ft (0.051 m) = 879 ft^3 (25 m^3).
Gallons = 879 ft^3 (25 m^3) x 7.48 = 6,574 gallons (24,885 liters).

Notes: Square feet = ft^2
Square meters = m^2
Cubic feet = ft^3
Cubic meters = m^3
Area in ft^2 (m^2)
Total volume in ft^3 (m^3)
Gallons = total volume x 7.48

224-T TRUSAF - THIRD FLOOR



Third floor containment = 4,355 ft^2 (405 m^2).
Minimum curb height = 2 in. (5 cm) or 0.166 ft (0.051 m).
Total volume = 4,355 ft^2 (405 m^2) x 0.166 ft (0.051 m) = 722 ft^3 (20 m^3).
Gallons = 722 ft^3 (20 m^3) x 7.48 = 5,400 gallons (20,439 liters).

Not to Scale

N

Notes: Square feet = ft^2
Square meters = m^2
Cubic feet = ft^3
Cubic meters = m^3
Area in ft^2 (m^2)
Total volume in ft^3 (m^3)
Gallons = total volume x 7.48

224-T TRUSAF

46°33'34"
119°37'09"

8706421-11CN
(PHOTO TAKEN 1987)

9312939175 8

224-T TRUSAF

TYPICAL CONTAINER

46°33'34"
119°37'09"

8700742-16CN
(PHOTO TAKEN 1987)

9312939175 9

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

FORM 3

DANGEROUS WASTE PERMIT APPLICATION

1. 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.
0 9		8 5

FOR EXISTING FACILITIES, PROVIDE THE DATE *(mo., day, & yr.)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to 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 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. 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	110,000	G		*7*				
2					*8*				
3					*9*				
4					*10*				

CONTINUE ON REVERSE

9 3 1 2 9 9 1 7 6 0

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.

S01

The 224-T Transuranic Waste Storage and Assay Facility (224-T TRUSAF) is located southeast of T Plant in the 200 West Area of the Hanford Facility. The 224-T TRUSAF provides a centralized storage unit for storage of transuranic mixed waste and low-level mixed waste from various Hanford Facility operations and from other U.S. Department of Energy and U.S. Department of Defense facilities. The transuranic mixed waste will be prepared for transfer to and disposal at the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico or at another approved disposal site. The 224-T TRUSAF also will store retrieved containers of transuranic mixed waste from the Low-Level Burial Grounds (LLBG). The LLBG transuranic mixed waste will be retrieved for characterization and reprocessing in the Waste Receiving and Processing Facility to be located on the Hanford Facility. Assay of the waste consists of nondestructive testing of the transuranic mixed waste and low-level mixed waste to confirm the fissile isotope content and the absence of prohibited items before shipment to the WIPP or to another approved disposal site. The 224-T TRUSAF storage unit capacity is approximately 110,000 gallons (416,400 liters) [2,000 55-gallon (208-liter) 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 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

9 3 1 2 9 - 9 1 7 6 1

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	D001	500	P	S01	Storage - Container
2	D002	500			
3	D003	500			
4	D004	500			
5	D005	500			
6	D006	500			
7	D007	500			
8	D008	1,000			
9	D010	500			
10	D011	500			
11	D018	500			
12	D019	500			
13	D020	500			
14	D021	500			
15	D022	500			
16	D023	500			
17	D024	500			
18	D025	500			
19	D026	500			
20	D027	500			
21	D028	500			
22	D029	500			
23	D030	500			
24	D031	500			
25	D032	500			
26	D033	500			

9 3 1 2 9 9 1 7 6 2

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): 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	D034	500	P	S01				Storage - Container
2	D035	500						
3	D036	500						
4	D037	500						
5	D038	500						
6	D039	500						
7	D040	500						
8	D041	500						
9	D042	500						
10	D043	500						
11	F001	500						
12	F002	500						
13	F003	500						
14	F004	500						
15	F005	500						
16	F020	500						
17	F021	500						
18	F022	500						
19	F023	500						
20	F026	500						
21	F027	500						
22	F028	500						
23								
24								
25								
26								

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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 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	W T 0 1	10,000	P	S 0 1	Storage - Container
2	W T 0 2	10,000			
3	W P 0 1	8,000			
4	W P 0 2	8,000			
5	W P 0 3	8,000			
6	W C 0 1	8,000			
7	W C 0 2	8,000			
8	W 0 0 1	500			
9					
10					
11					
12					
13					
14					
15					
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9 3 1 2 9 9 1 7 6 4

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)				2. PROCESS DESCRIPTION (If a code is not entered in D(1))
1	U001	500	P	S01				Storage - Container
2	U002	500						
3	U003	500						
4	U004	500						
5	U005	500						
6	U006	500						
7	U007	500						
8	U008	500						
9	U009	500						
10	U010	500						
11	U011	500						
12	U012	500						
13	U013	500						
14	U014	500						
15	U015	500						
16	U016	500						
17	U017	500						
18	U018	500						
19	U019	500						
20	U020	500						
21	U021	500						
22	U022	500						
23	U023	500						
24	U024	500						
25	U025	500						
26	U026	500						

9 3 1 2 9 9 1 7 6 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): 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	U027	500	P	S01	Storage - Container
2	U028	500			
3	U029	500			
4	U030	500			
5	U031	500			
6	U032	500			
7	U033	500			
8	U034	500			
9	U035	500			
10	U036	500			
11	U037	500			
12	U038	500			
13	U039	500			
14	U041	500			
15	U042	500			
16	U043	500			
17	U044	500			
18	U045	500			
19	U046	500			
20	U047	500			
21	U048	500			
22	U049	500			
23	U050	500			
24	U051	500			
25	U052	500			
26	U053	500			

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 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	P	S01	Storage - Container
2	U056	500			
3	U057	500			
4	U058	500			
5	U059	500			
6	U060	500			
7	U061	500			
8	U062	500			
9	U063	500			
10	U064	500			
11	U065	500			
12	U066	500			
13	U067	500			
14	U068	500			
15	U069	500			
16	U070	500			
17	U071	500			
18	U072	500			
19	U073	500			
20	U074	500			
21	U075	500			
22	U076	500			
23	U077	500			
24	U078	500			
25	U079	500			
26	U080	500			

9 3 1 2 9 9 1 7 6 7

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 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	U 0 8 1	500	P	S 0 1					Storage - Container
2	U 0 8 2	500							
3	U 0 8 3	500							
4	U 0 8 4	500							
5	U 0 8 5	500							
6	U 0 8 6	500							
7	U 0 8 7	500							
8	U 0 8 8	500							
9	U 0 8 9	500							
10	U 0 9 0	500							
11	U 0 9 1	500							
12	U 0 9 2	500							
13	U 0 9 3	500							
14	U 0 9 4	500							
15	U 0 9 5	500							
16	U 0 9 6	500							
17	U 0 9 7	500							
18	U 0 9 8	500							
19	U 1 0 1	500							
20	U 1 0 2	500							
21	U 1 0 7	500							
22	U 1 0 8	500							
23	U 1 1 2	500							
24	U 1 1 3	500							
25	U 1 1 6	500							
26	U 1 1 7	500							

9 3 1 2 9 9 1 7 6 8

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	U118	500	P	S01	Storage - Container
2	U119	500			
3	U120	500			
4	U123	500			
5	U124	500			
6	U134	500			
7	U136	500			
8	U137	500			
9	U139	500			
10	U140	500			
11	U145	500			
12	U146	500			
13	U148	500			
14	U149	500			
15	U150	500			
16	U151	500			
17	U152	500			
18	U153	500			
19	U154	500			
20	U155	500			
21	U156	500			
22	U157	500			
23	U158	500			
24	U159	500			
25	U160	500			
26	U161	500			

9 3 1 2 9 9 1 7 6 9

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 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	U162	500	P	S01	Storage - Container
2	U163	500			
3	U164	500			
4	U165	500			
5	U166	500			
6	U167	500			
7	U168	500			
8	U169	500			
9	U170	500			
10	U171	500			
11	U172	500			
12	U173	500			
13	U174	500			
14	U175	500			
15	U176	500			
16	U177	500			
17	U178	500			
18	U179	500			
19	U180	500			
20	U181	500			
21	U182	500			
22	U183	500			
23	U184	500			
24	U185	500			
	U186	500			
26	U187	500			

(enter "A", "B", "C" or "D" to identify page/column page)

9 3 1 2 9 9 1 7 7 0

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 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	U188	500	P	S01				Storage - Container
2	U189	500						
3	U190	500						
4	U191	500						
5	U192	500						
6	U193	500						
7	U194	500						
8	U195	500						
9	U196	500						
10	U197	500						
11	U200	500						
12	U201	500						
13	U202	500						
14	U203	500						
15	U204	500						
16	U205	500						
17	U206	500						
18	U207	500						
19	U208	500						
20	U209	500						
21	U210	500						
22	U211	500						
23	U212	500						
24	U213	500						
25	U214	500						
26	U215	500						

9 3 1 2 9 9 1 7 7 1

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 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 waste is not assigned in D(1))
1	U216	500	P	S01				Storage - Container
2	U217	500						
3	U218	500						
4	U219	500						
5	U220	500						
6	U221	500						
7	U222	500						
8	U223	500						
9	U224	500						
10	U225	500						
11	U226	500						
12	U227	500						
13	U228	500						
14	U230	500						
15	U231	500						
16	U232	500						
17	U233	500						
18	U234	500						
19	U235	500						
20	U236	500						
21	U237	500						
22	U238	500						
23	U239	500						
24	U240	500						
25	U241	500						
26	U242	500						

9 3 1 2 9 9 1 7 7 2

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

I.D. NUMBER *(entered from page 1)*: 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	U243	500	P	S01	Storage - Container
2	U244	500			
3	U245	500			
4	U246	500			
5	U247	500			
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
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19					
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21					
22					
23					
24					
25					
26					

9 3 1 2 9 - 9 1 7 7 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 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	P001	500	P	S01	Storage - Container
2	P002	500			
3	P003	500			
4	P004	500			
5	P005	500			
6	P006	500			
7	P007	500			
8	P008	500			
9	P009	500			
10	P010	500			
11	P011	500			
12	P012	500			
13	P013	500			
14	P014	500			
15	P015	500			
16	P016	500			
17	P017	500			
18	P018	500			
19	P020	500			
20	P021	500			
21	P022	500			
22	P023	500			
23	P024	500			
24	P025	500			
25	P026	500			
26	P027	500			

9 3 1 2 9 9 1 7 7 4

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)				2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	P028	500	P	S01				Storage - Container
2	P029	500						
3	P030	500						
4	P031	500						
5	P033	500						
6	P034	500						
7	P035	500						
8	P036	500						
9	P037	500						
10	P038	500						
11	P039	500						
12	P040	500						
13	P041	500						
14	P042	500						
15	P043	500						
16	P044	500						
17	P045	500						
18	P046	500						
19	P047	500						
20	P048	500						
21	P049	500						
22	P050	500						
23	P051	500						
24	P054	500						
25	P056	500						
26	P057	500						

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

I.D. NUMBER (enter from page 1): WA7890089967

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	P058	500	P	S01	Storage - Container
2	P059	500			
3	P060	500			
4	P062	500			
5	P063	500			
6	P064	500			
7	P065	500			
8	P066	500			
9	P067	500			
10	P068	500			
11	P069	500			
12	P070	500			
13	P071	500			
14	P072	500			
15	P073	500			
16	P074	500			
17	P075	500			
18	P076	500			
19	P077	500			
20	P078	500			
21	P079	500			
22	P081	500			
23	P082	500			
24	P084	500			
25	P085	500			
26	P087	500			

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

I.D. NUMBER (enter from page 1): 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	P088	500	P	S01	Storage - Container
2	P089	500			
3	P092	500			
4	P093	500			
5	P094	500			
6	P095	500			
7	P096	500			
8	P097	500			
9	P098	500			
10	P099	500			
11	P101	500			
12	P102	500			
13	P103	500			
14	P104	500			
15	P105	500			
16	P106	500			
17	P107	500			
18	P108	500			
19	P109	500			
20	P110	500			
21	P111	500			
22	P112	500			
23	P113	500			
24	P114	500			
25	P115	500			
26					

93129-91777

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 transuranic mixed waste and low-level mixed waste managed at the 224-T TRUSAF include waste generated from various Hanford Facility operations and from other U.S. Department of Energy and U.S. Department of Defense facilities. The potential transuranic mixed waste and low-level mixed waste managed could include waste from nonspecific sources, characteristic waste, toxicity characteristic waste, listed waste, and state-only waste (extremely hazardous, dangerous, and polychlorinated biphenyl contaminated waste). The estimated annual quantity of waste is based on gross estimates of mixed waste that could be stored at the 224-T TRUSAF.

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 the 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
John D. Wagoner, Manager U.S. Department of Energy Richland Field Office	John D. Wagoner	3/1/93

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

9312291778

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 D. Wagoner — 3/1/93

Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
Richland Field Office

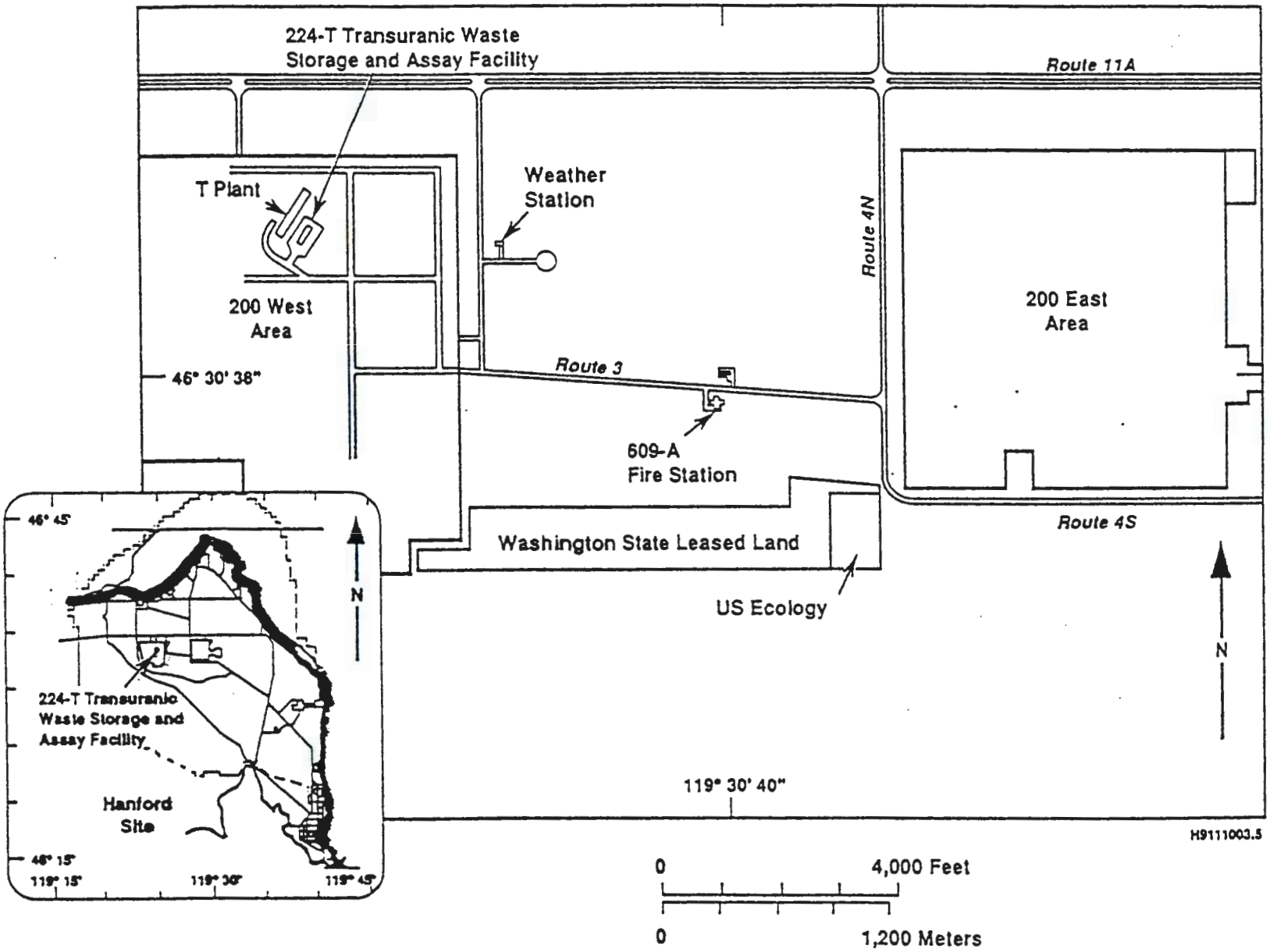
Date

Thomas M. Anderson — 2/17/93

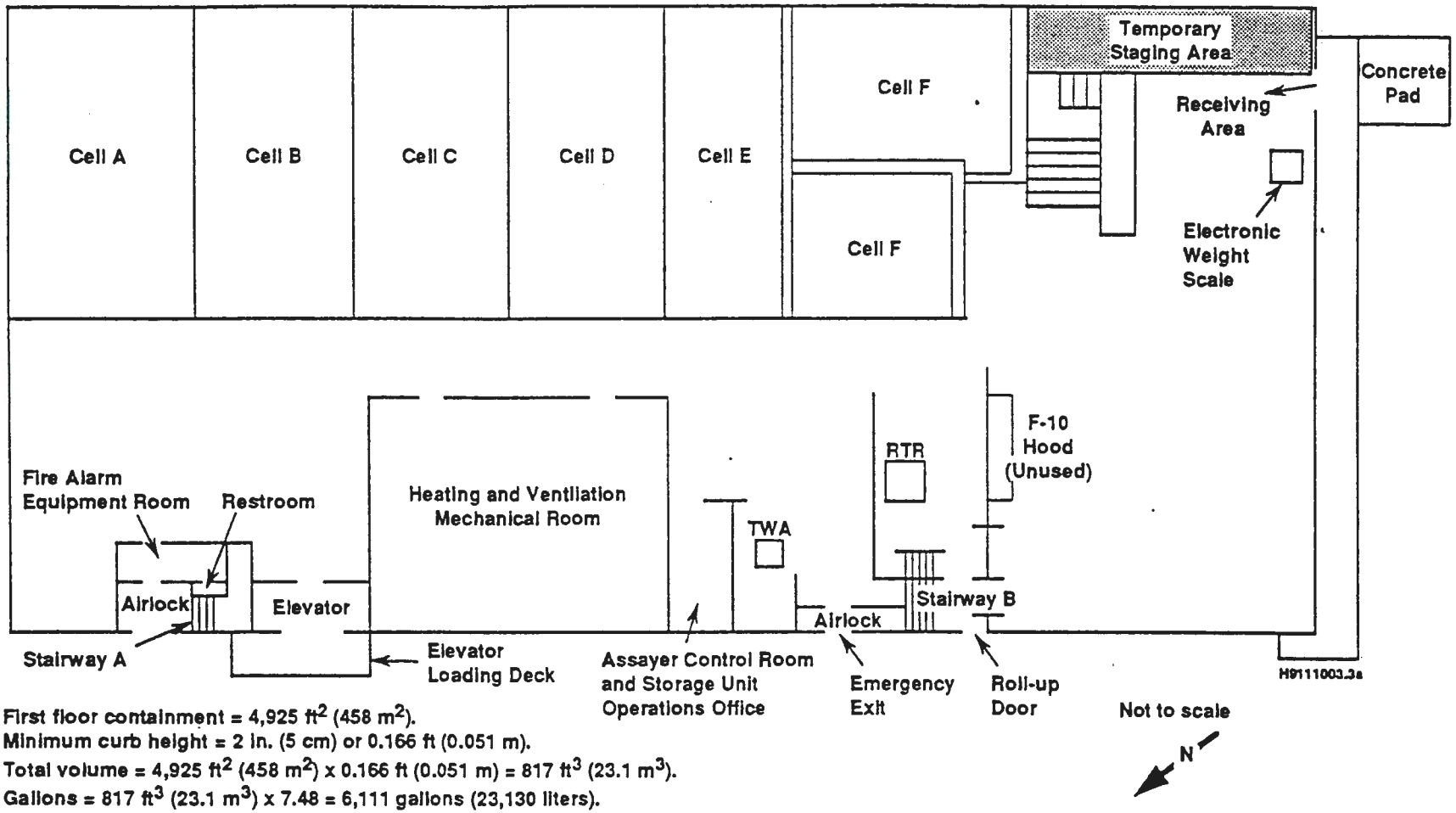
Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

Date

224-T TRUSAF SITE PLAN



224-T TRUSAF - FIRST FLOOR



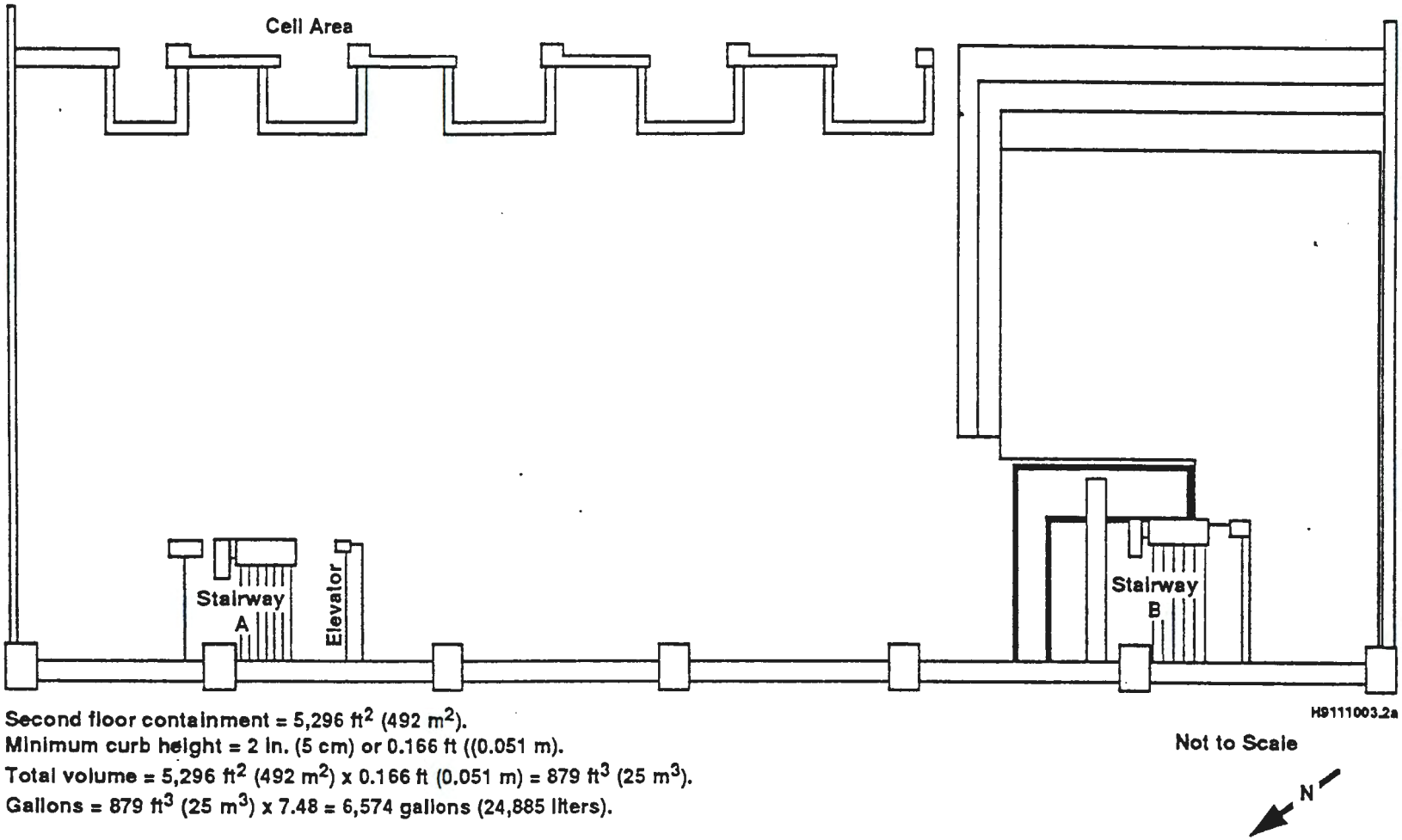
First floor containment = 4,925 ft^2 (458 m^2).
Minimum curb height = 2 in. (5 cm) or 0.166 ft (0.051 m).
Total volume = 4,925 ft^2 (458 m^2) x 0.166 ft (0.051 m) = 817 ft^3 (23.1 m^3).
Gallons = 817 ft^3 (23.1 m^3) x 7.48 = 6,111 gallons (23,130 liters).

Notes: Square feet = ft^2
Square meters = m^2
Cubic feet = ft^3
Cubic meters = m^3
Area in ft^2 (m^2)
Total volume in ft^3 (m^3)
Gallons = total volume x 7.48
Refer to Drawing H-2-71704 in Appendix 4A for floor dimensions.

TWA = transuranic waste assayer.

RTR = real-time radiography x-ray system.

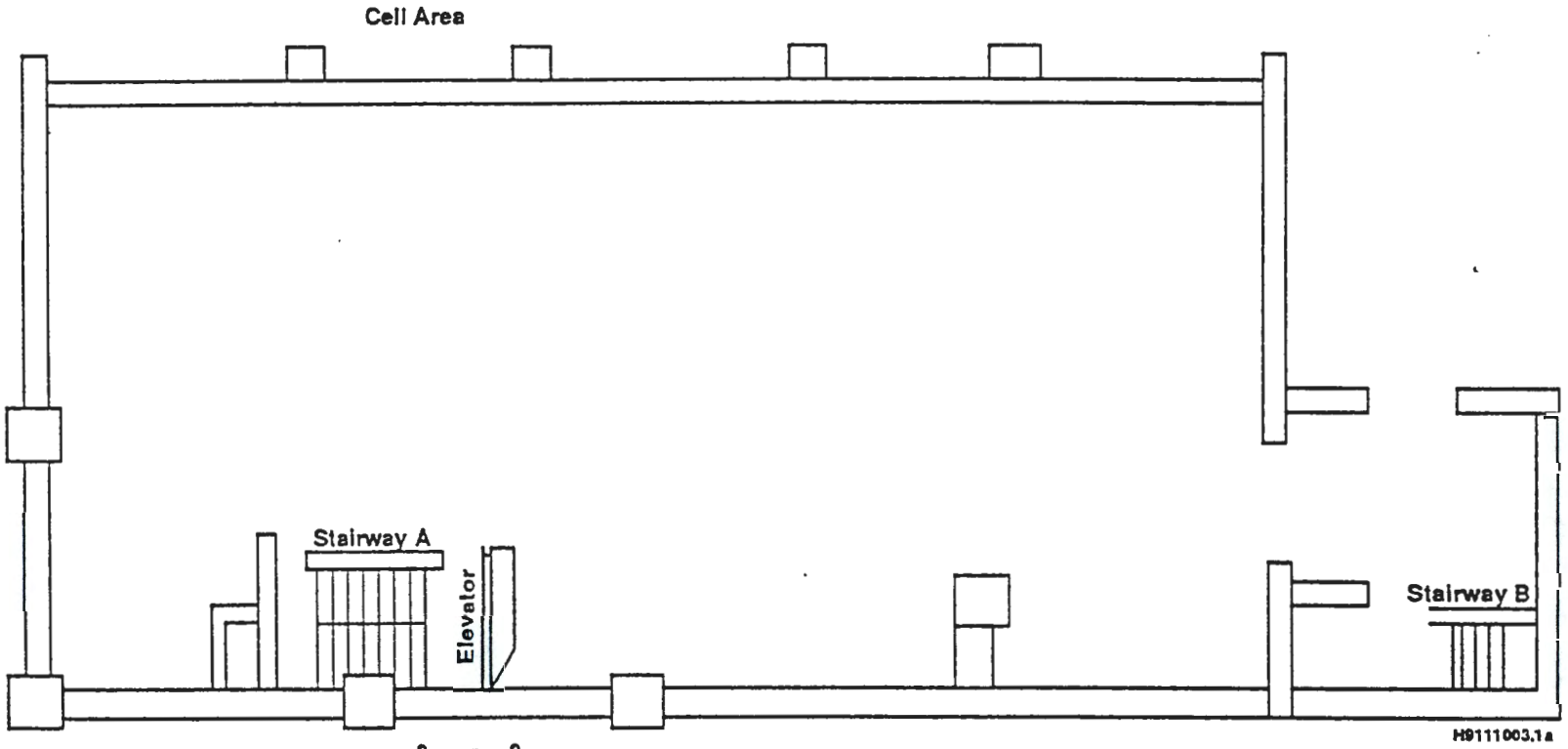
224-T TRUSAF - SECOND FLOOR



Second floor containment = 5,296 ft^2 (492 m^2).
Minimum curb height = 2 in. (5 cm) or 0.166 ft ((0.051 m).
Total volume = 5,296 ft^2 (492 m^2) x 0.166 ft (0.051 m) = 879 ft^3 (25 m^3).
Gallons = 879 ft^3 (25 m^3) x 7.48 = 6,574 gallons (24,885 liters).

Notes: Square feet = ft^2
Square meters = m^2
Cubic feet = ft^3
Cubic meters = m^3
Area in ft^2 (m^2)
Total volume in ft^3 (m^3)
Gallons = total volume x 7.48
Refer to Drawing H-2-71705 in Appendix 4A for floor dimensions.

224-T TRUSAF - THIRD FLOOR



Third floor containment = 4,355 ft^2 (405 m^2).
Minimum curb height = 2 in. (5 cm) or 0.166 ft (0.051 m).
Total volume = 4,355 ft^2 (405 m^2) x 0.166 ft (0.051 m) = 722 ft^3 (20 m^3).
Gallons = 722 ft^3 (20 m^3) x 7.48 = 5,400 gallons (20,439 liters).

Not to Scale

N

Notes: Square feet = ft^2
Square meters = m^2
Cubic feet = ft^3
Cubic meters = m^3
Area in ft^2 (m^2)
Total volume in ft^3 (m^3)
Gallons = total volume x 7.48
Refer to Drawing H-2-87584 in Appendix 4A for floor dimensions.

224-T TRUSAF

46°33'34"
119°37'09"

8706421-11CN
(PHOTO TAKEN 1987)

9 3 1 2 9 3 9 1 7 8 4

224-T TRUSAF

TYPICAL CONTAINER

46°33'34"
119°37'09"

8700742-16CN
(PHOTO TAKEN 1987)

9 3 1 2 9 3 9 1 7 8 5

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

FORM 3

DANGEROUS WASTE PERMIT APPLICATION

1. 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 *(use the boxes to the left)*
*See Attached Tank List Table

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

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

LINE NUMBER	A. 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 2	91,880,000	G		7				
2	T 0 1	600,000	U		8				
3	S 0 3	0.14	Y		9				
4					10				

9 3 1 2 9 9 1 7 8 6

CONTINUE ON REVERSE

ontinued from the front.

..I. PROCESSES (continued)

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

SEE ATTACHED SHEET

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
POUNDS	P
TONS	T

METRIC UNIT OF MEASURE	CODE
KILOGRAMS	K
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)*	B. PROCESSES 1. PROCESS CODES *(enter)*	B. 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

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

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

S02, T01

The Single-Shell Tank (SST) System consists of 149 tanks that were built between the years 1943 and 1964 to store mixed waste (S02) generated at the Hanford Site. There are two types of tanks in the SST System: 133 of the SSTs (100 series) are 75 feet (23 meters) in diameter with normal capacities of 500,000 to 1,000,000 gallons (1,900,000 to 3,800,000 liters), while 16 of the SSTs (200 series) are smaller and of a similar design with a 20-foot (6-meter) diameter and a capacity of 55,000 gallons (208,000 liters). Table 1 lists tank numbers, year of construction, year removed from service, and operating capacity. The SST System has a total storage design capacity of 91,880,000 gallons (347,800,000 liters). Treatment of the mixed waste in the SST System occurs when the liquid mixed waste is separated from the solid waste and is pumped to the Double-Shell Tank (DST) System (T01). This process involves pumping the supernatant liquid mixed waste from the SST System at the design limited rate of 576,000 gallons (2,180,000 liters) per day. The remaining liquid mixed waste in the salt well is pumped at a design rate of 14,400 gallons (54,000 liters) per day. These design capacity rates are based on the simultaneous pumping of two SSTs in a 24-hour period. Ancillary equipment used for the transfer of liquid mixed waste consists of: (1) centrifugal pumps capable of pumping supernatant liquid mixed waste at 200 gallons (757 liters) per minute, (2) induction pumps capable of pumping liquid waste from the salt well at 5 gallons (19 liters) per minute, and (3) associated valves and piping to the DST System.

S03

Associated with the SST System are 53 inactive diversion boxes acting as waste piles (S03). It is estimated that approximately 50 pounds (23 kilograms) of waste lead is stored in each diversion box (worst-case scenario) accounting for a total of 2,650 pounds (1,200 kilograms) or 0.14 cubic yards (0.11 cubic meters) of waste lead in storage. A summary of the SST System and corresponding diversion boxes is provided in Table 2. All diversion boxes used with the SST System are inactive and presently are isolated (weather covered).

Table 1 - Single-Shell Tank System Summary
(sheet 1 of 4)

Tank number	Year of construction	Year removed from service[1]	Operating capacity (gallons)
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

Table 1 - Single-Shell Tank System Summary
(sheet 2 of 4)

Tank number	Year of construction	Year removed from service[1]	Operating capacity (gallons)
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
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 - Single-Shell Tank System Summary
(sheet 3 of 4)

Tank number	Year of construction	Year removed from service[1]	Operating capacity (gallons)
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

Table 1 - Single-Shell Tank System Summary
(sheet 4 of 4)

Tank number	Year of construction	Year removed from service[1]	Operating capacity (gallons)
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
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 might have been earlier.

Table 2 - Single-Shell Tank System Diversion Box Matrix (sheet 1 of 2)

Unit	SSTs	Diversion boxes
A	241-A-101 through 241-A-106 241-AX-101 through 241-AX-104	241-A-152 241-A-153 241-AX-151 241-AX-152 241-AX-155 241-AY-151 241-AY-152
B	241-B-101 through 241-B-112 241-B-201 through 241-B-204 241-BX-101 through 241-BX-112 241-BY-101 through 241-BY-112	241-B-151 241-B-152 241-B-153 241-B-154 241-B-252 241-BX-152 241-BX-153 241-BX-154 241-BX-155 241-BXR-151 241-BXR-152 241-BXR-153 241-BYR-152 241-BYR-153 241-BYR-154
C	241-C-101 through 241-C-112 241-C-201 through 241-C-204	241-C-151 241-C-152 241-C-153 241-C-154 241-C-252 241-CR-151 241-CR-152 241-CR-153
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

Table 2 - Single-Shell Tank System Diversion Box Matrix
(sheet 2 of 2)

Unit	SSTs	Diversion boxes
T	241-T-101 through 241-T-112 241-T-201 through 241-T-204 241-TX-101 through 241-TX-118 241-TY-101 through 241-TY-106	241-T-151 241-T-152 241-T-153 241-T-252 242-T-151 241-TR-152 241-TR-153 241-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

9 1 1 3 6 9 7 1 6 4

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

..D. NUMBER *(entered from page 1)*

W	A	7	8	9	0	0	0	8	9	6	7

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

LINE NO.	A. DANGEROUS WASTE NO. *(enter code)*	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE *(enter code)*	D. PROCESSES 1. PROCESS CODES *(enter)*				D. PROCESSES 2. PROCESS DESCRIPTION *(If a code is not entered in D(1))*
1	D001	450,000,000	P	S02	T01			Storage - Tank/Treatment - Tank
2	D002							
3	D003							
4	D004							
5	D005							
6	D006							
7	D007							
8	D008							
9	D009							
10	D010							
11	D011							
12	D018							
13	D019							
14	D022							
15	D028							
16	D029							
17	D030							
18	D033							
19	D034							
20	D035							
21	D036							
22	D038							
23	D039							
24	D040							
25	D041							
26	D043							

9 3 1 2 9 9 1 7 9 5

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

I.D. NUMBER *(entered from page 1)*

W	A	7	8	9	0	0	0	8	9	6	7

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

LINE NO.	A. DANGEROUS WASTE NO. *(enter code)*	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE *(enter code)*	D. PROCESSES 1. 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			Storage - Tank/Treatment - Tank
2	WT02							(cont)
3	WC01							
4	WC02							
5	WP01							
6	WP02							
7	F001							
8	F002							
9	F003							
10	F004							
11	F005							Included With Above
12	D008	2,650	P	S03				Storage - Waste Pile
13	WT01							Included With Above
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								

9 3 1 2 9 9 1 7 9 6

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DESCRIPTION OF DANGEROUS WASTES (continued)

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

The mixed waste stored in the SST System was generated by four major chemical reprocessing operations: the bismuth phosphate (BiPo) process, the reduction-oxidation (REDOX) process, the plutonium-uranium extraction (PUREX) process, and the tributyl phosphate (TBP) process.

The dangerous waste codes listed under the description of dangerous wastes are based on a computer model and past process knowledge rather than on chemical analysis of waste. The Estimated Annual Quantity of Dangerous Waste (item III.B.1.) listed is based on an average density of the waste calculated from the densities of 26 core samples taken of waste stored in various SSTs. The average density (12 pounds/gallon [1.4 kilograms/liter]) was multiplied by the total volume of waste currently stored in the SST System (36,836,000 gallons [139,440,000 kilograms]).

The quantity of waste lead stored in the diversion boxes is based on previous research of historical records. Because of the radiological hazards associated with individual inspection of the diversion boxes, a quantity of 50 pounds (23 kilograms) of waste lead was estimated for each box. This represents a conservative estimate, as 50 pounds (23 kilograms) is the maximum quantity of waste lead known to be in any one diversion box.

9 3 1 2 9 9 1 7 9 7

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 the 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
John D. Wagoner, Manager U.S. Department of Energy Richland Field Office	for [signature]	4/13/93

X. OPERATOR CERTIFICATION

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 nquiry of those individuals immediately responsible for obtaining the information. I believe that the submitted information is true, accurate, and complete. I am aware that here 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.

Owner/Operator
for John D. Wagoner, Manager
U.S. Department of Energy
Richland Field Office

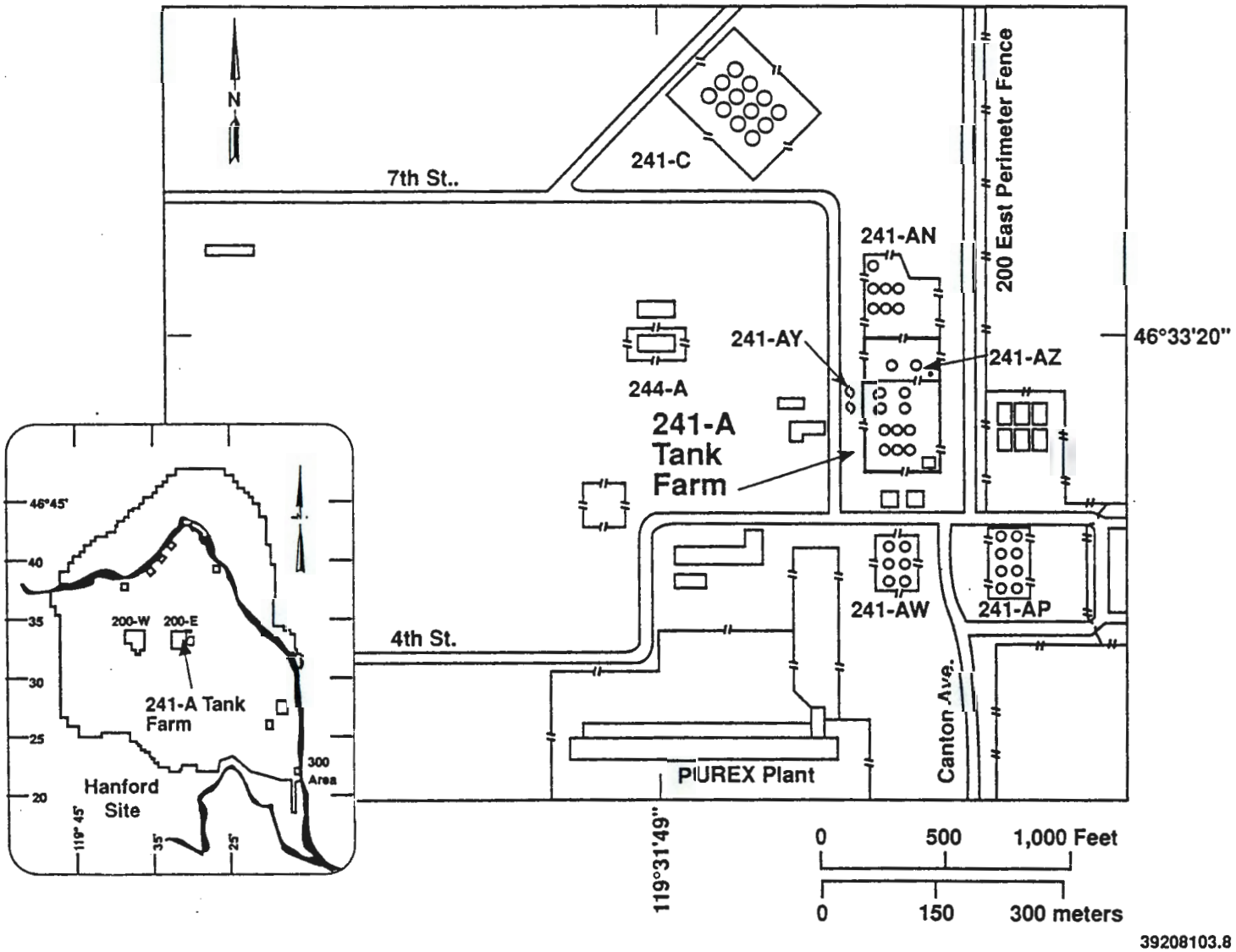
4/13/93
Date

Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

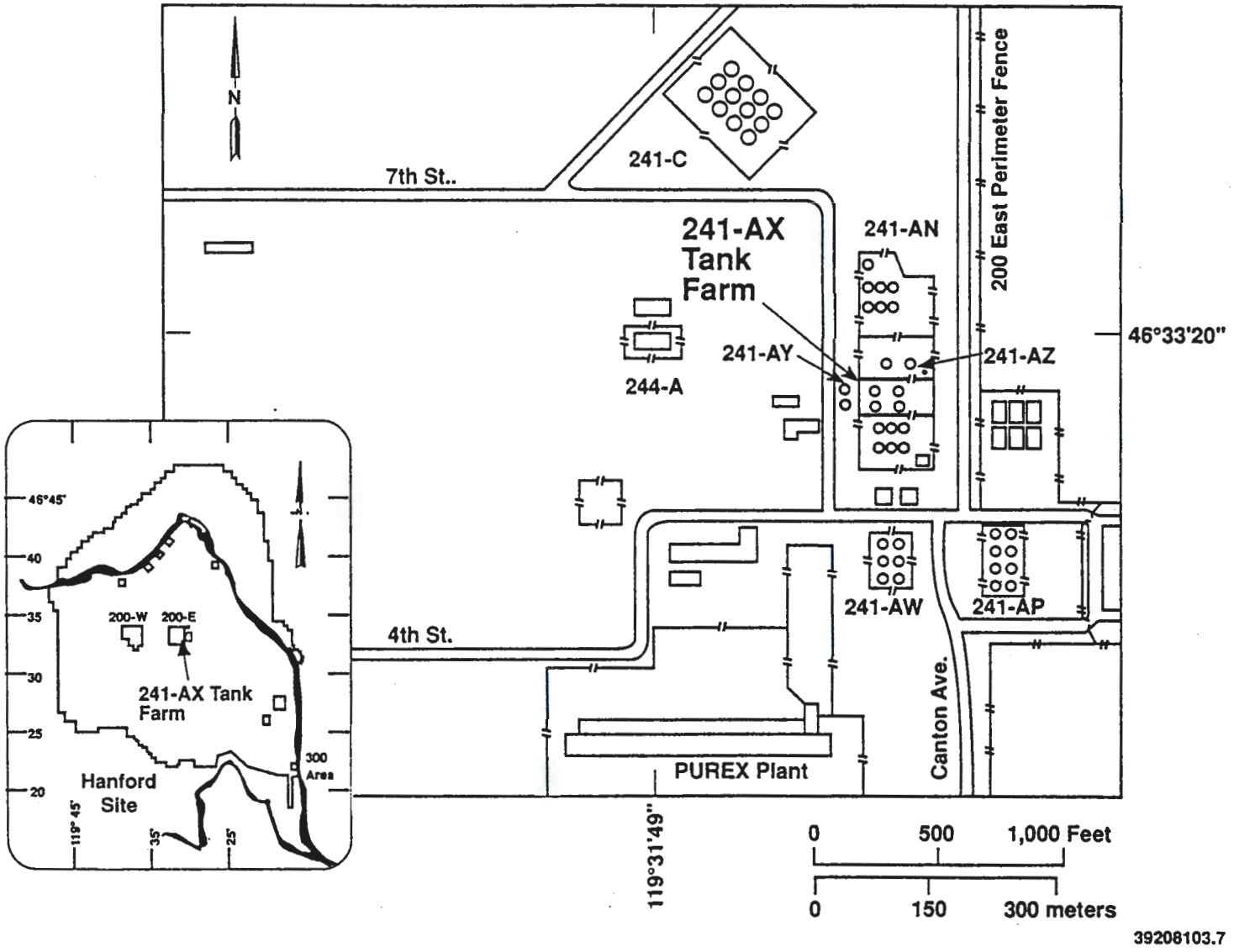
3/12/93
Date

9 1 2 0 9 1 7 9 3

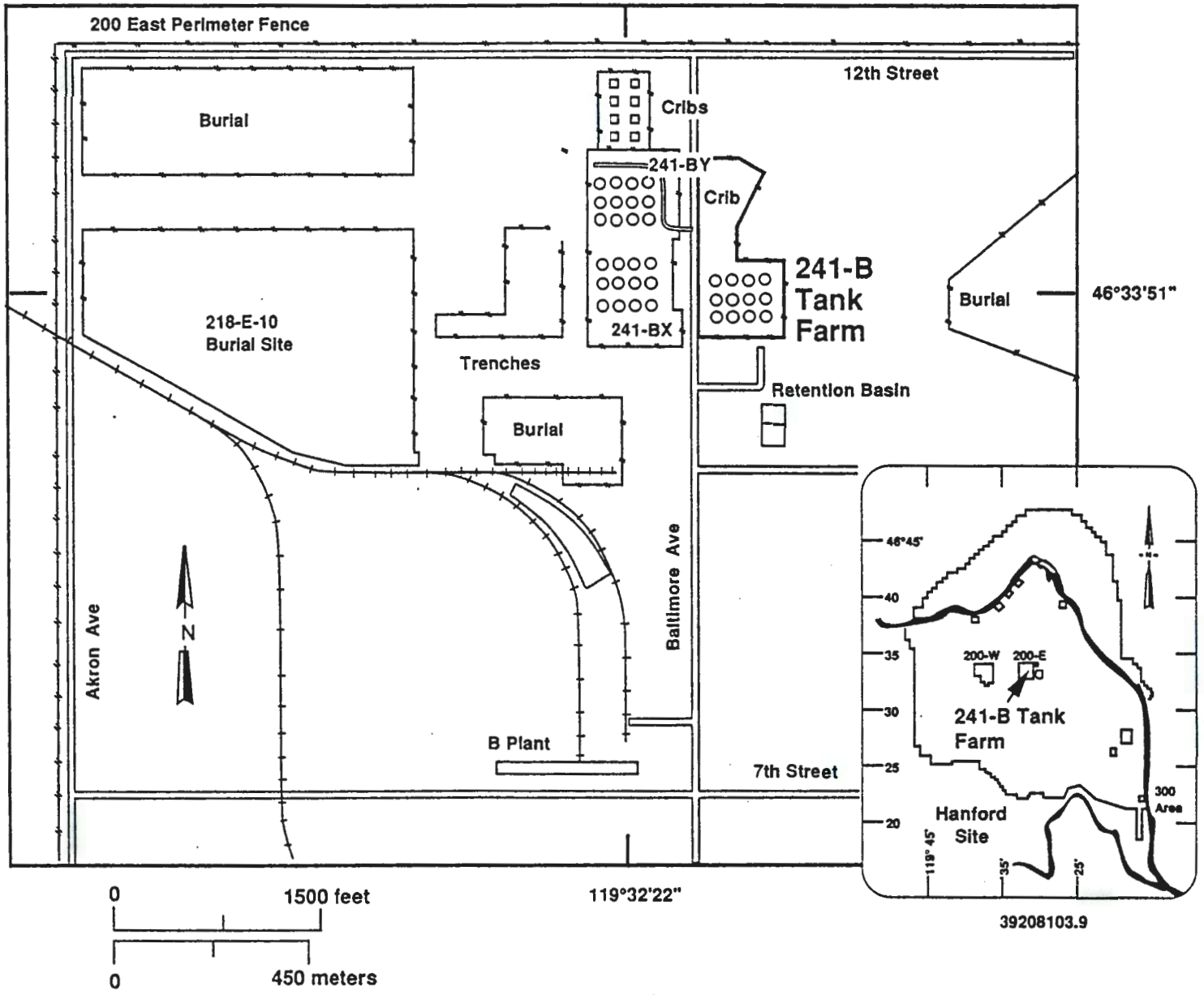
241-A Single-Shell Tank Farm
Site Plan



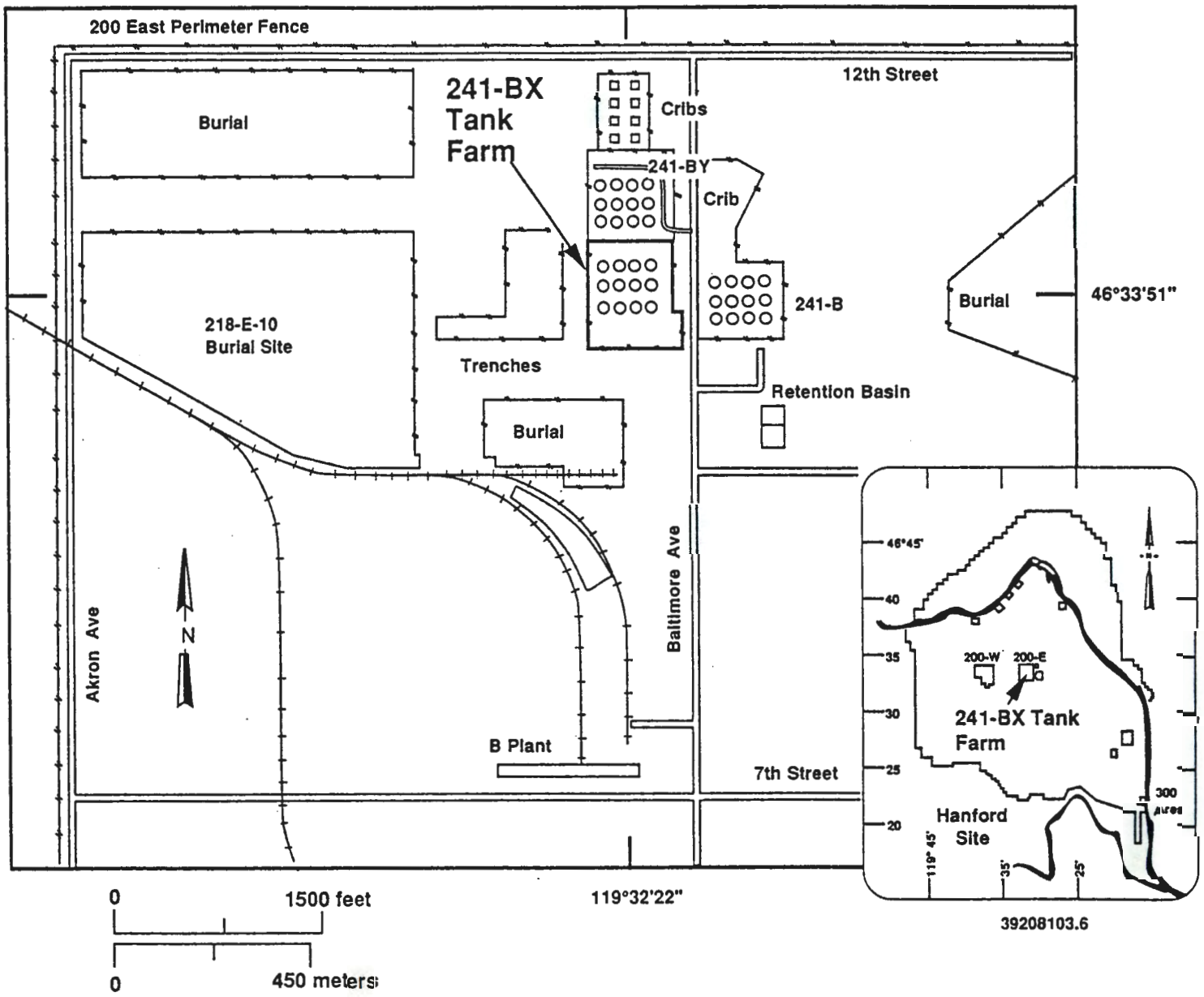
241-AX Single-Shell Tank Farm
Site Plan



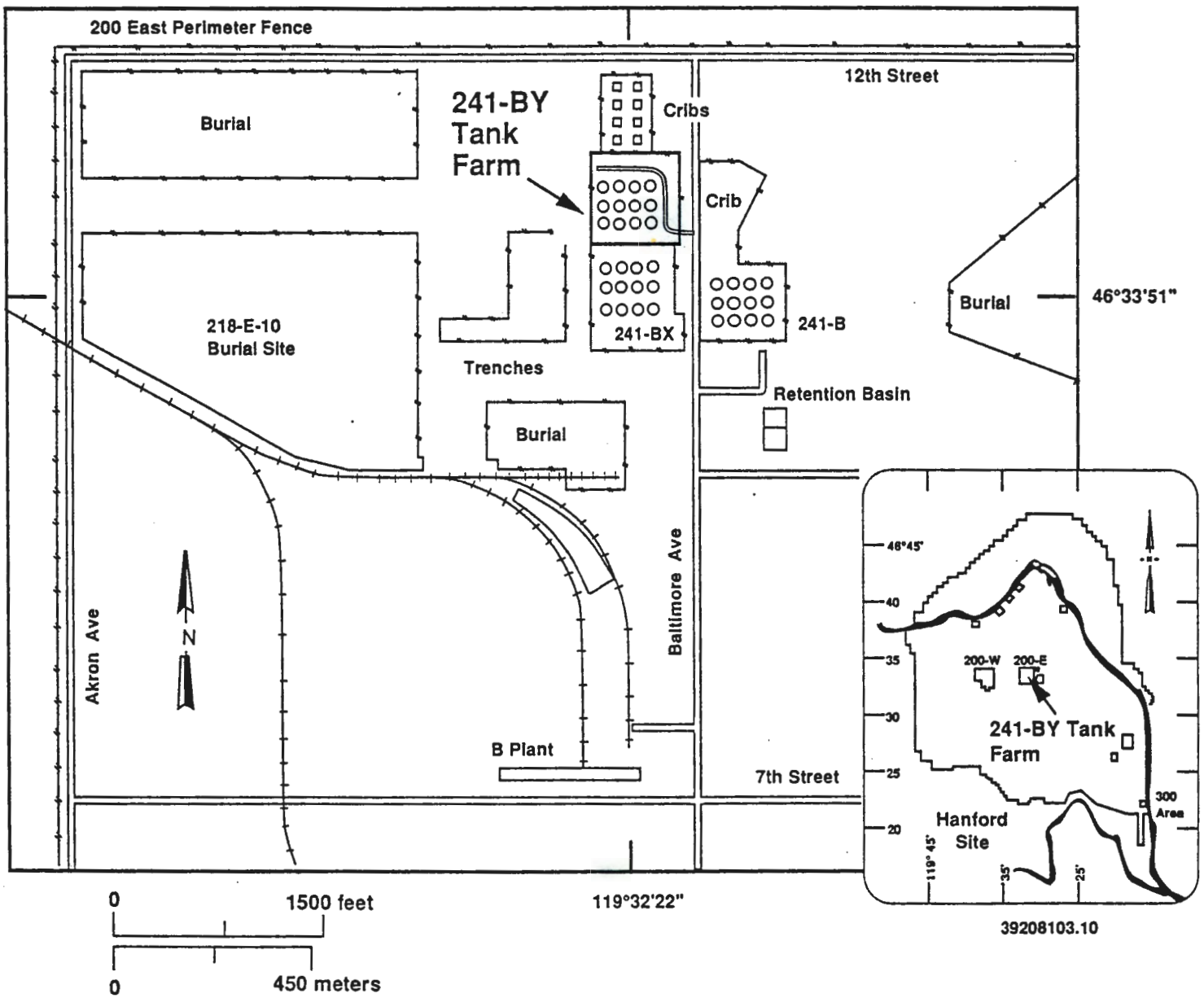
241-B Single-Shell Tank Farm
Site Plan



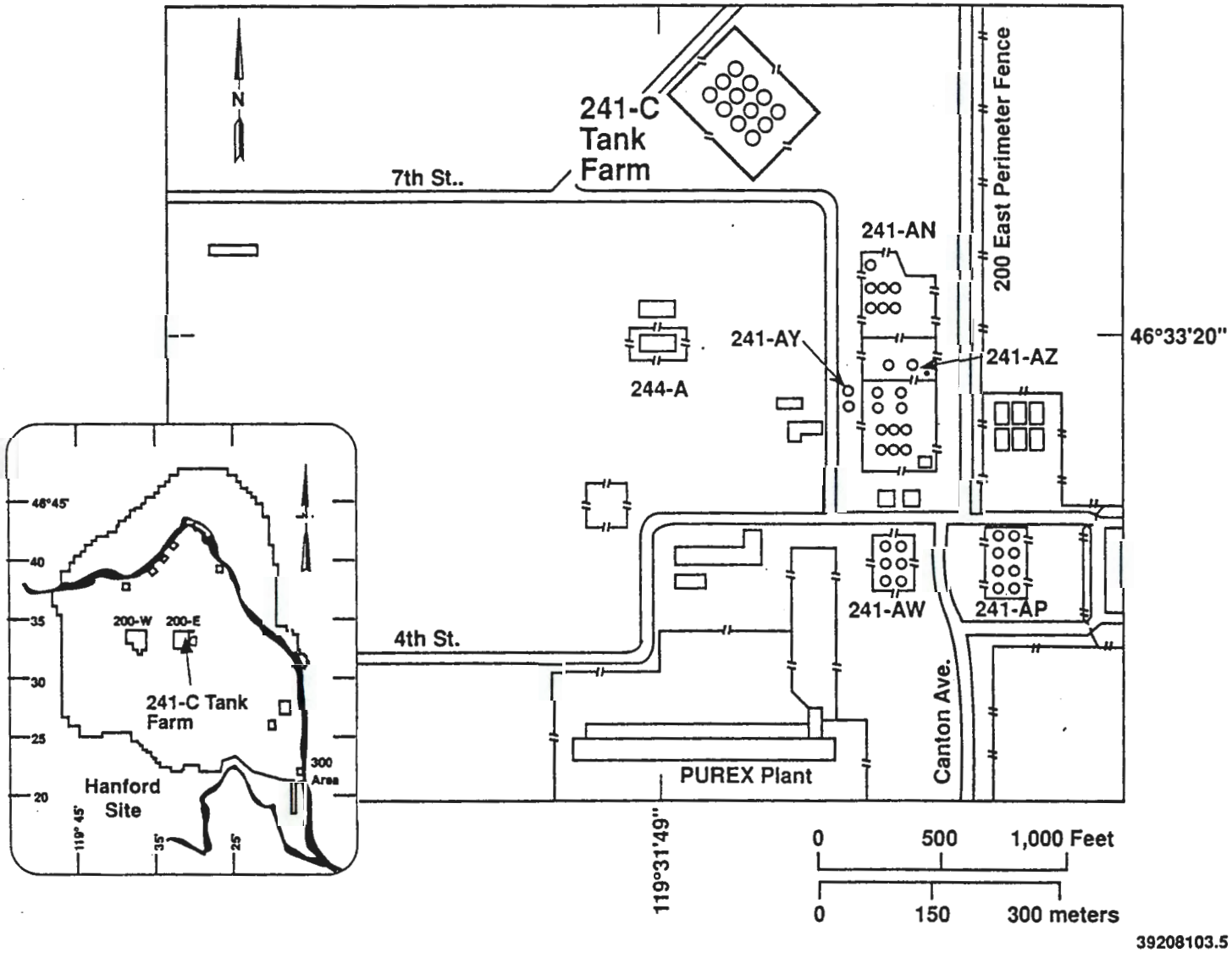
241-BX Single-Shell Tank Farm
Site Plan



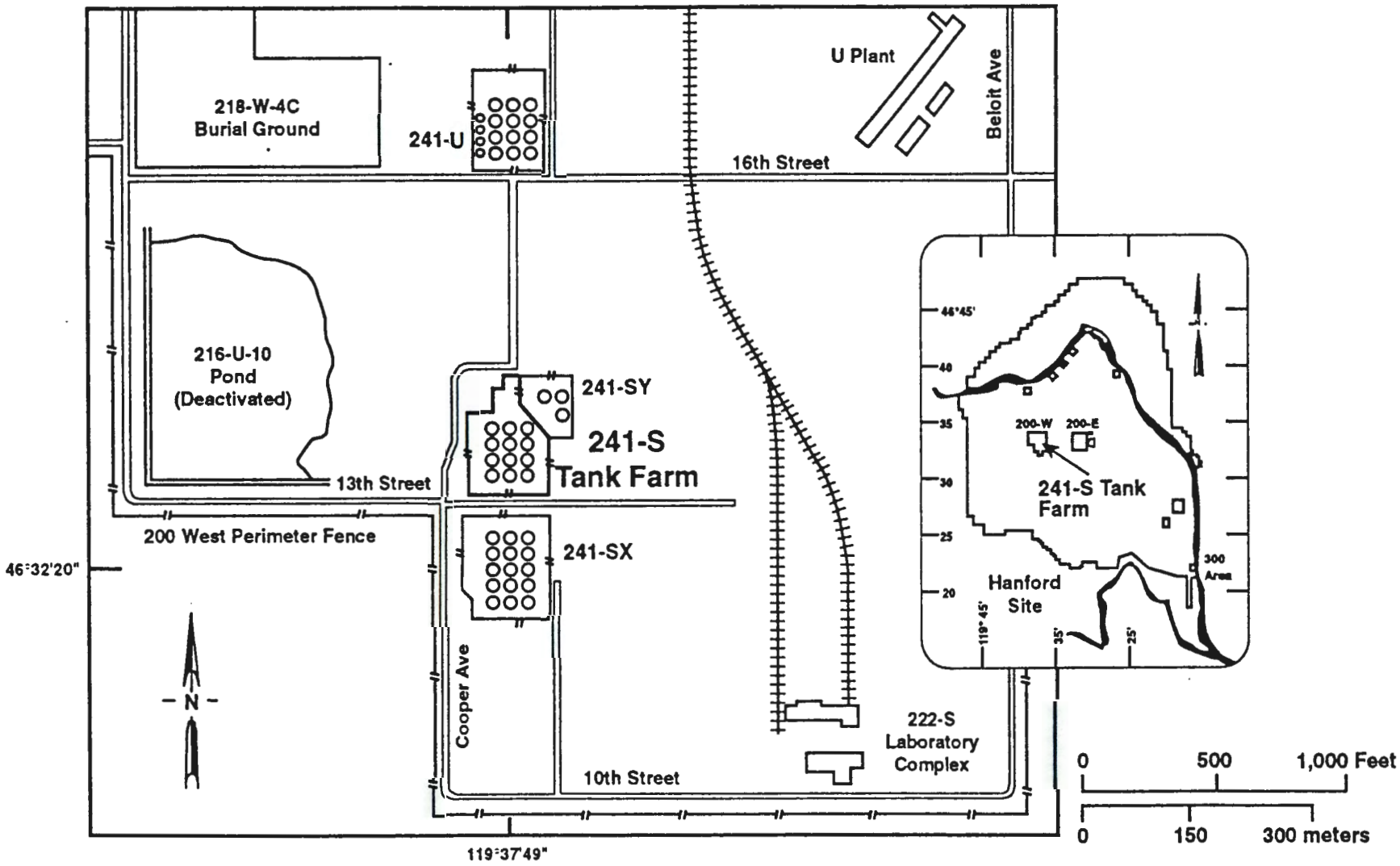
241-BY Single-Shell Tank Farm
Site Plan



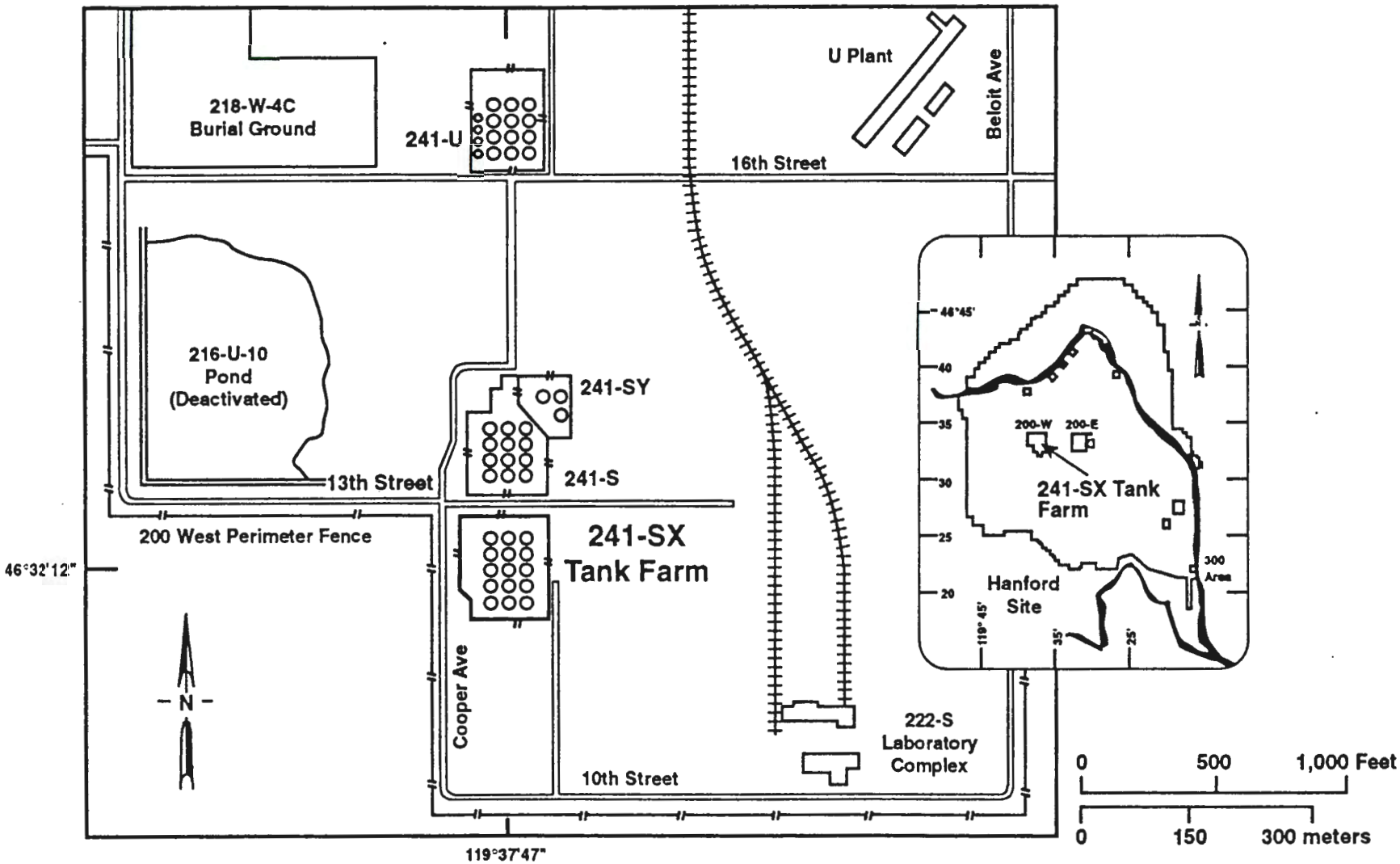
241-C Single-Shell Tank Farm
Site Plan



241-S Single-Shell Tank Farm
Site Plan

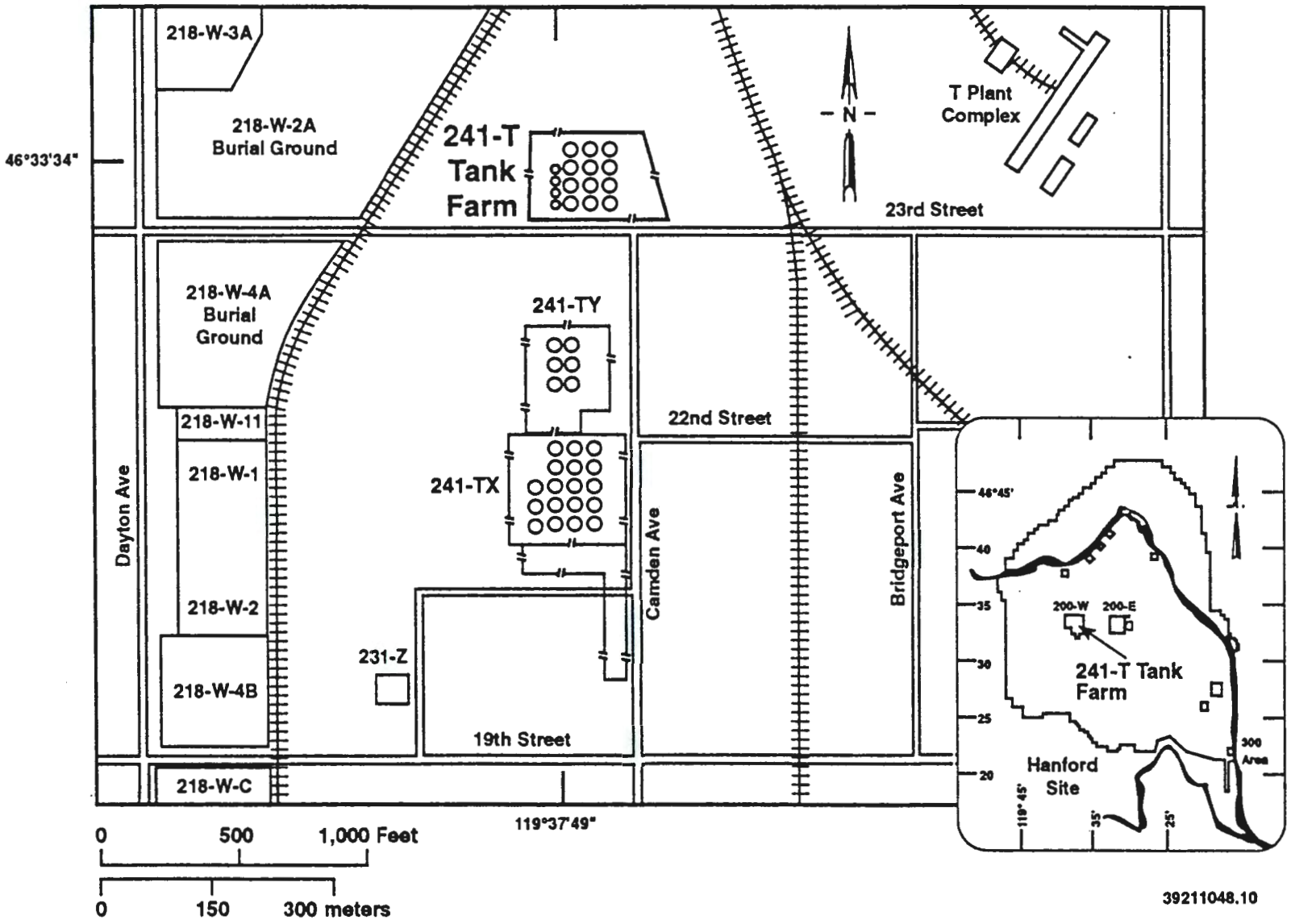


241-SX Single-Shell Tank Farm
Site Plan

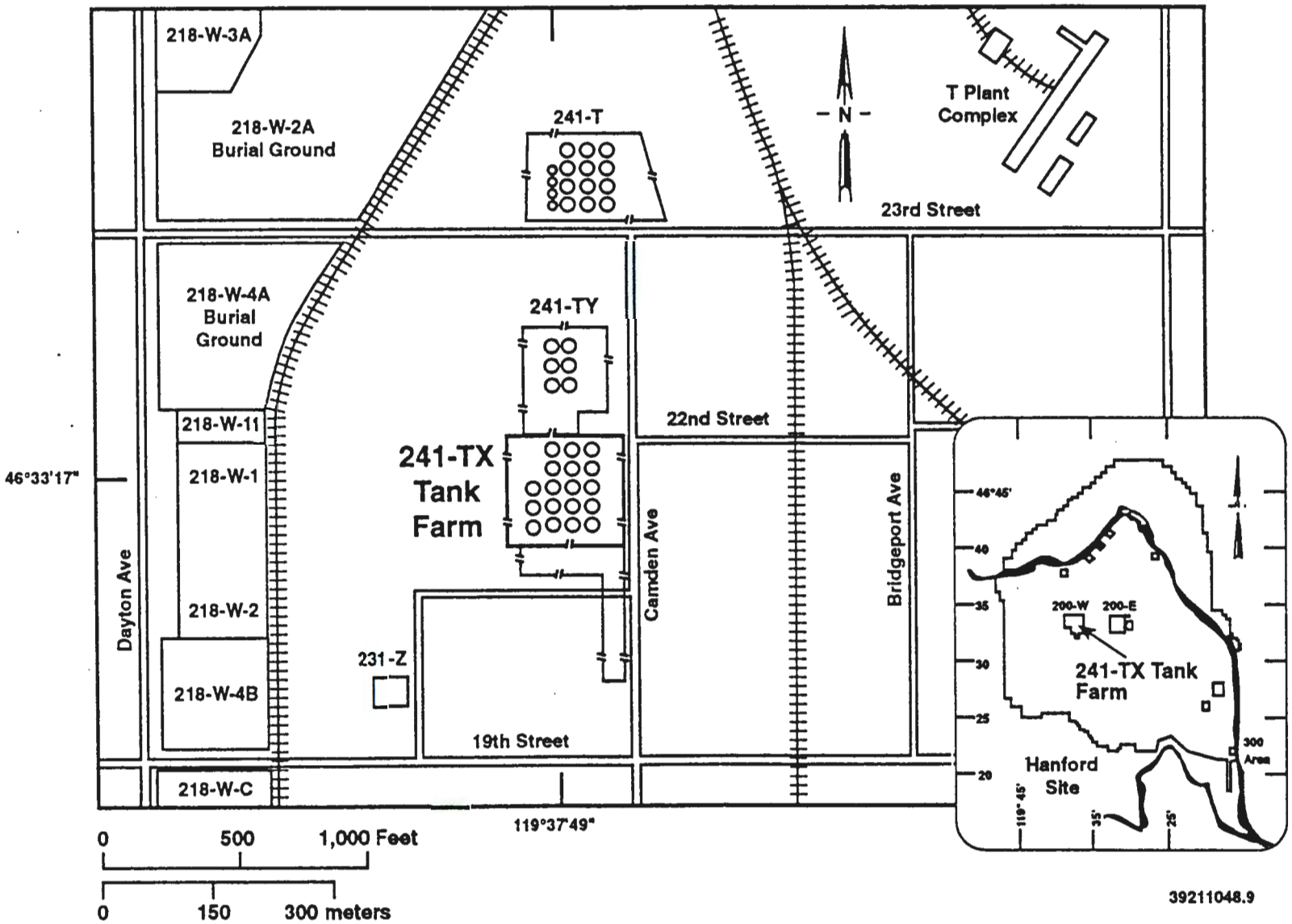


39211048.11

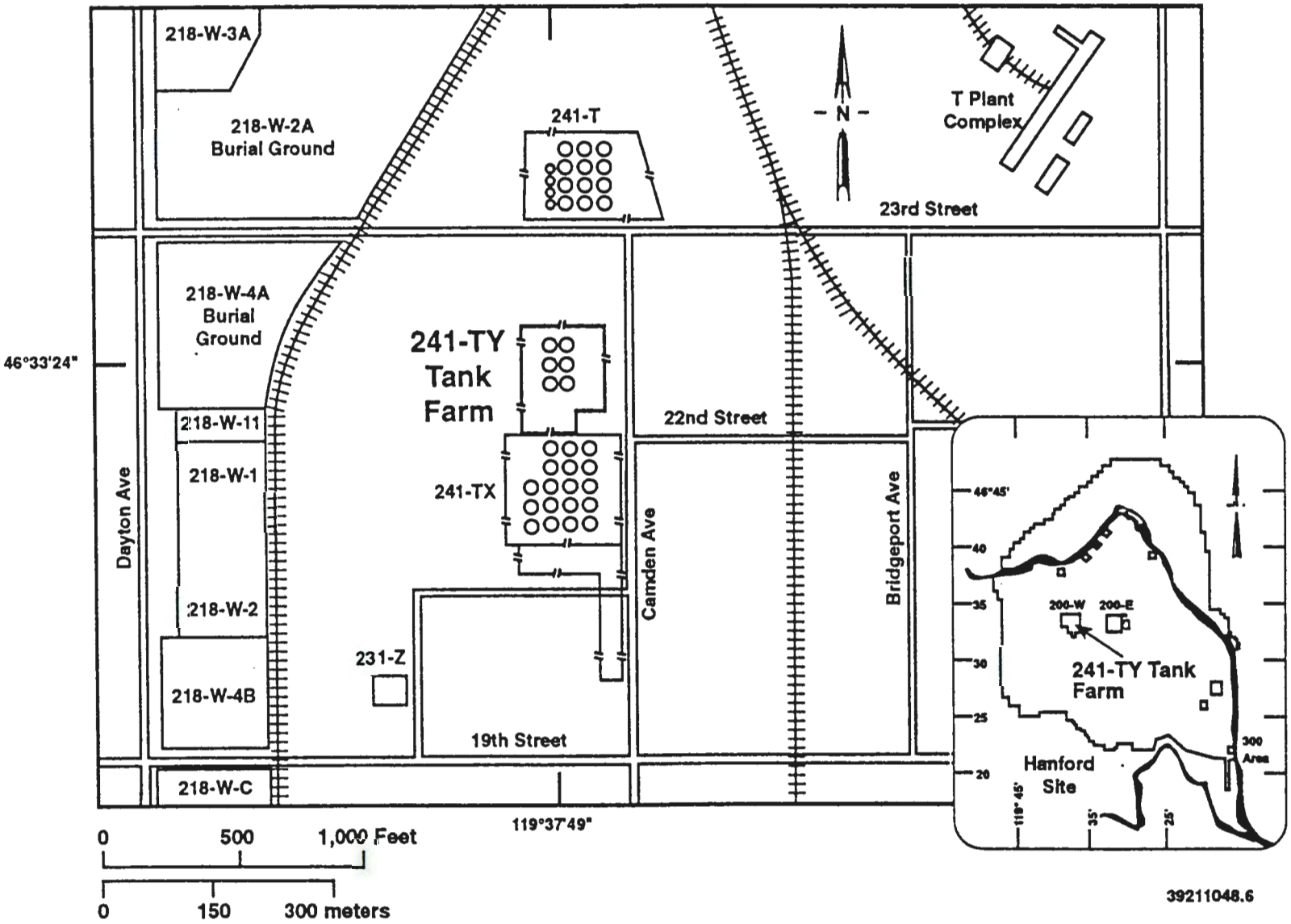
241-T Single-Shell Tank Farm
Site Plan



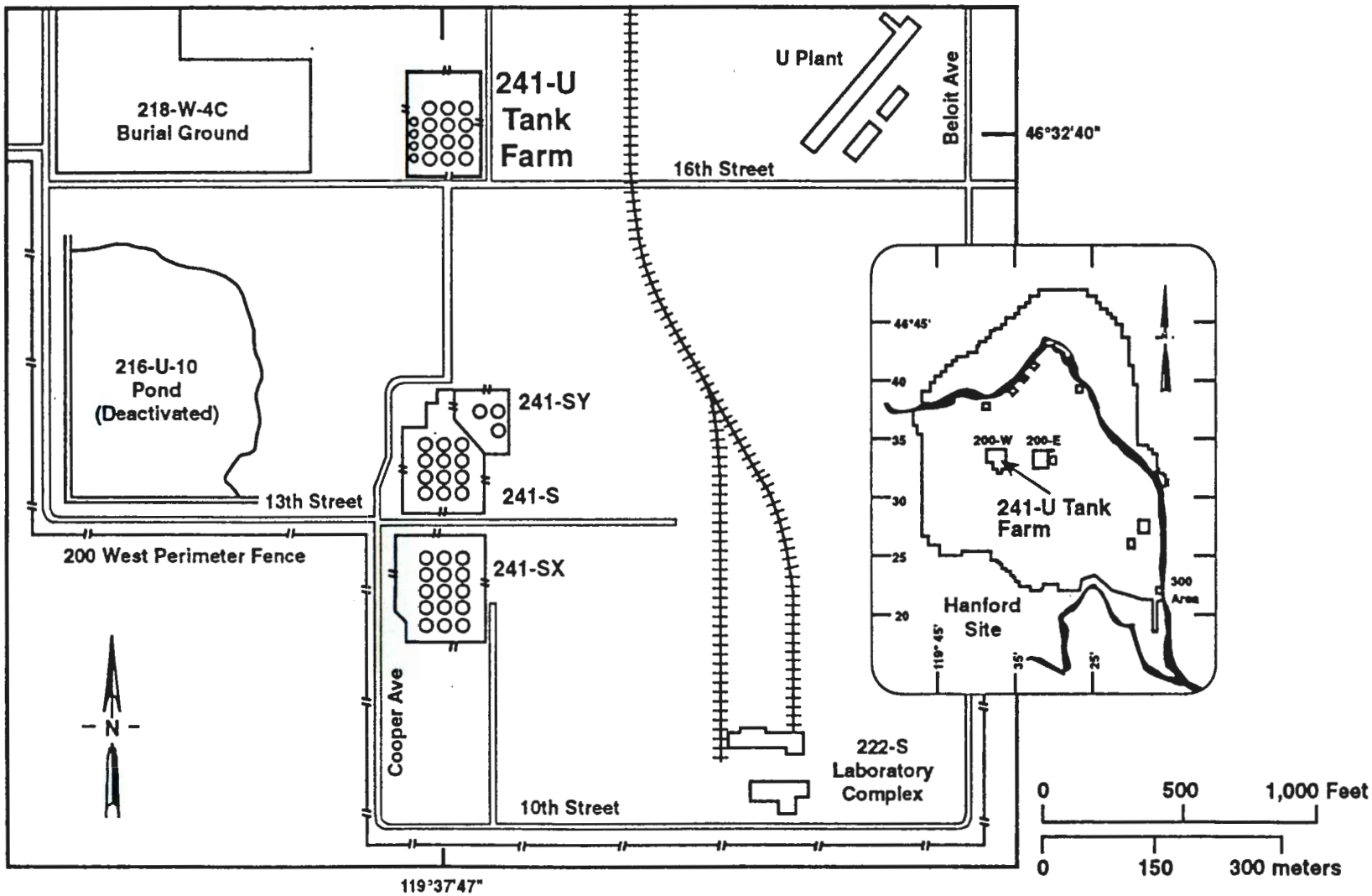
241-TX Single-Shell Tank Farm
Site Plan



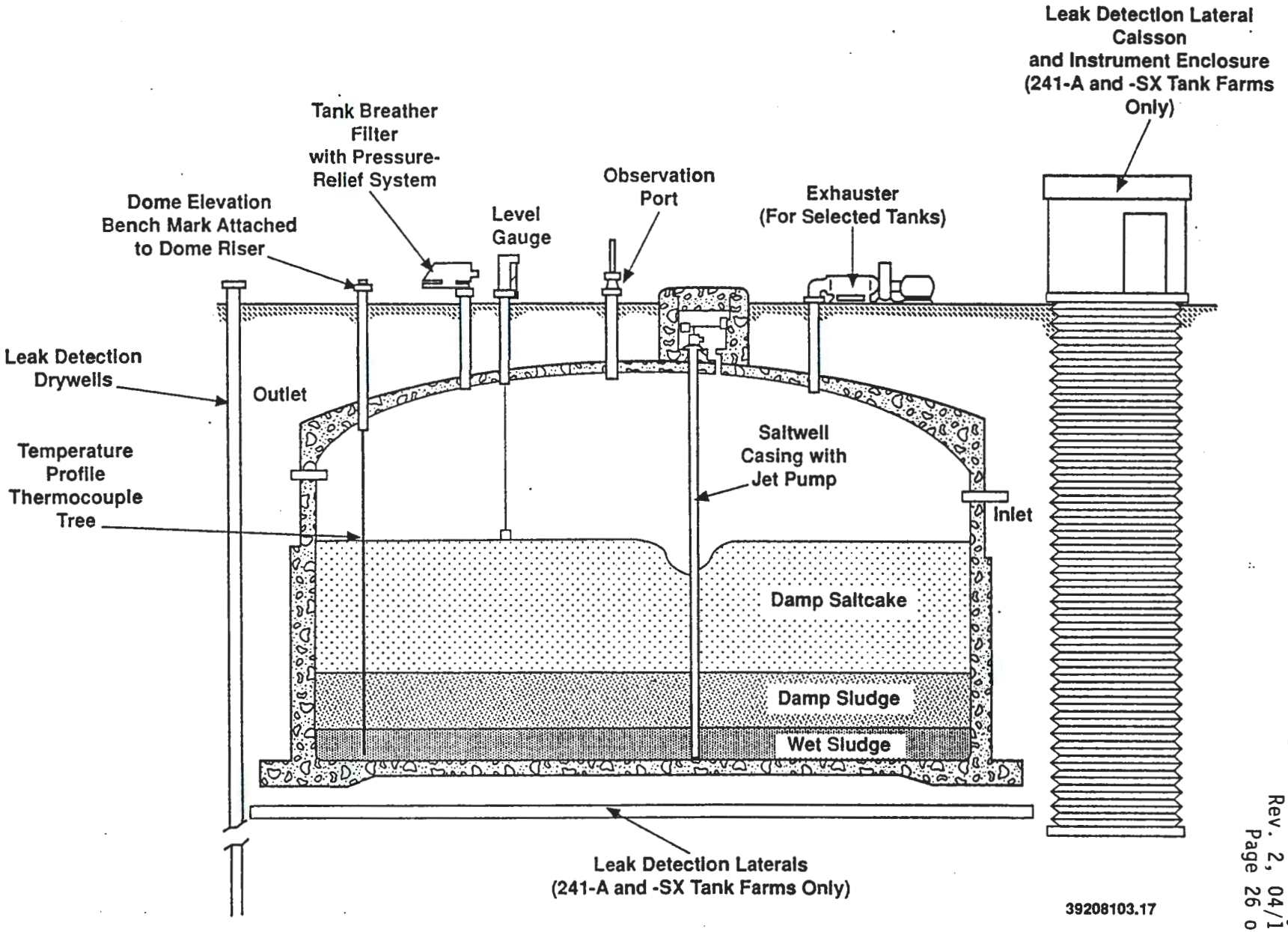
241-TY Single-Shell Tank Farm
Site Plan



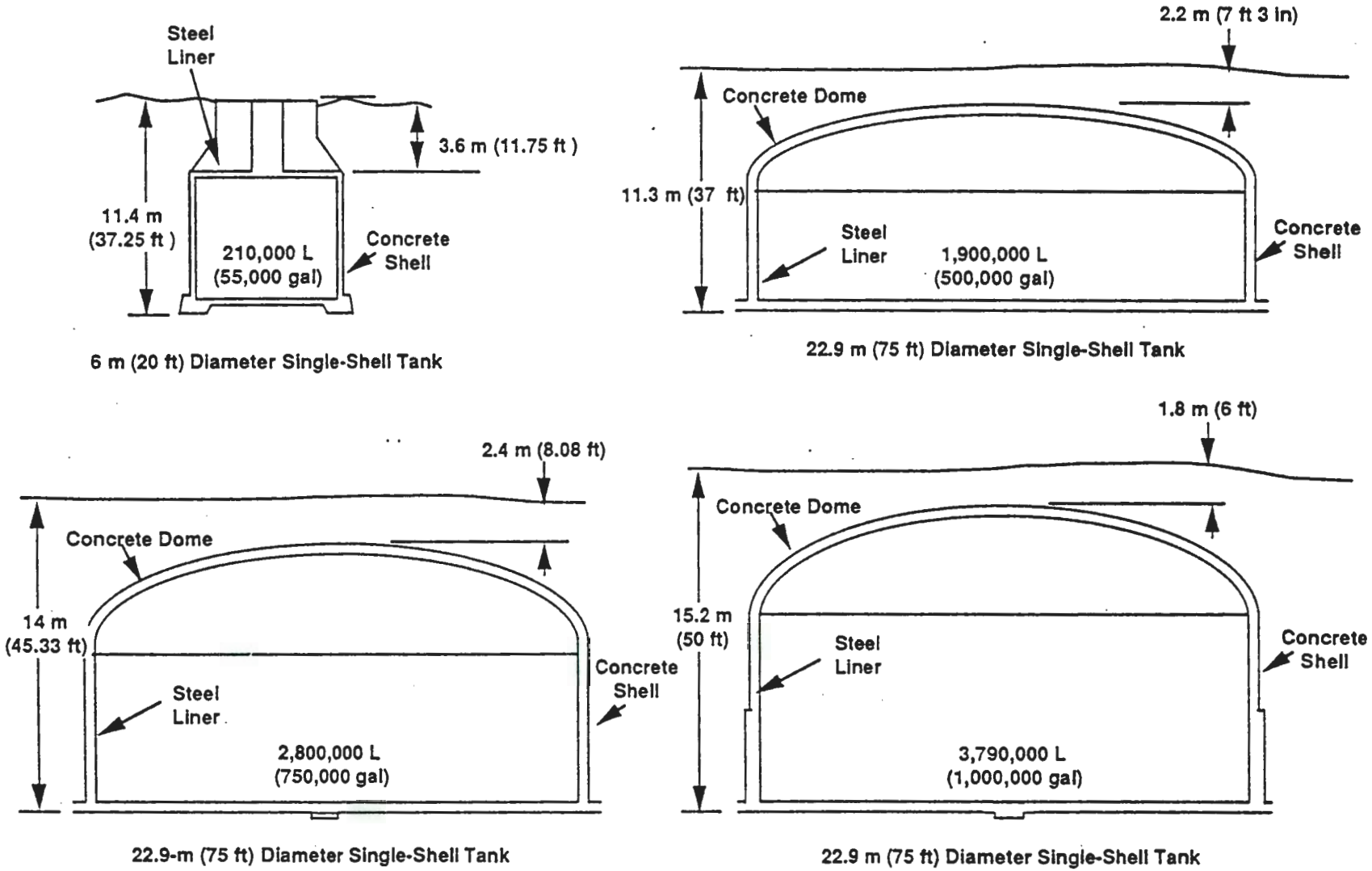
241-U Single-Shell Tank Farm
Site Plan



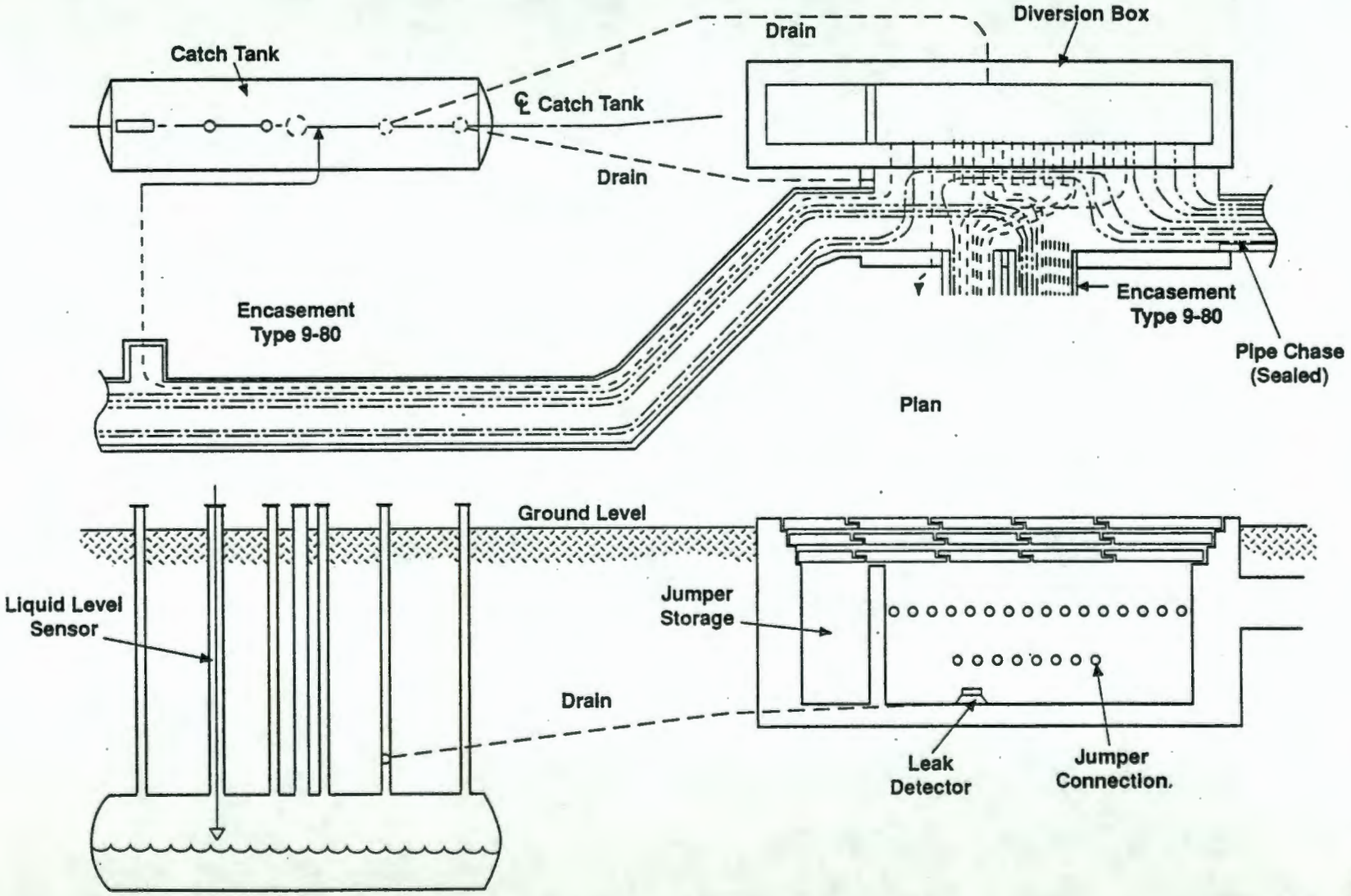
Typical Single-Shell Tank



Cross-Sectional Views of Hanford Single-Shell Tanks



Typical Transfer System



241-A SINGLE-SHELL TANK FARMS

46°33'11"
119°31'02"

8800284-1CN
(PHOTO TAKEN 1988)

9 3 1 2 9 3 9 1 8 1 4

241-AX SINGLE-SHELL TANK FARM

8800284-2CN
(PHOTO TAKEN 1988)

46°33'15"
119°31'02"

8800284-3CN
(PHOTO TAKEN 1988)

9312979181 5

241-B SINGLE-SHELL TANK FARM

46°33'52"
119°32'12"

8800284-6CN
(PHOTO TAKEN 1988)

9 3 1 2 9 7 9 1 8 1 6

241-BX SINGLE-SHELL TANK FARM

46°33'51"
119°32'22"

8800284-7CN
(PHOTO TAKEN 1988)

9 3 1 2 9 3 9 1 8 1 7

241-BY SINGLE-SHELL TANK FARM

8800284-8CN
(PHOTO TAKEN 1988)

46°33'58"
119°32'22"

8800284-9CN
(PHOTO TAKEN 1988)

9312979818

241-C SINGLE-SHELL TANK FARM

46°33'27"
119°31'13"

8800284-5CN
(PHOTO TAKEN 1988)

9312939819

241-S SINGLE-SHELL TANK FARM

46°32'20"
119°37'47"

8800284-15CN
(PHOTO TAKEN 1988)

9 3 1 2 9 7 9 1 8 2 0

241-SX SINGLE-SHELL TANK FARM

46°32'12"
119°37'47"

8800284-16CN
(PHOTO TAKEN 1988)

9 3 1 2 9 3 9 1 8 2 1

241-T SINGLE-SHELL TANK FARM

8800284-10CN
(PHOTO TAKEN 1988)

46°33'34"
119°37'47"

8800284-11CN
(PHOTO TAKEN 1988)

9 3 1 2 9 7 9 1 8 2 2

241-TX SINGLE-SHELL TANK FARM

46°33'17"
119°37'49"

8800284-13CN
(PHOTO TAKEN 1988)

9 3 1 2 9 7 9 1 8 2 3

241-TY SINGLE-SHELL TANK FARM

46°33'24"
119°37'49"

8800284-12CN
(PHOTO TAKEN 1988)

9 3 1 2 9 3 9 1 8 2 4

241-U SINGLE-SHELL TANK FARM

46°32'40"
119°37'47"

8800284-14CN
(PHOTO TAKEN 1988)

9 3 1 2 9 3 9 1 8 2 5

Please print or type in the unshaded areas only
(Fill-in 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 — FOR EXISTING FACILITIES, PROVIDE THE DATE *(mo., day, & yr.)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to the left)*

☒ 2. NEW FACILITY *(Complete item below.)*

MO: 1 0 | DAY: 0 1 | YR: 9 1 — 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. 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 4	26,000,000	G		7				
2					8				
3					9				
4					10				

9 3 1 2 9 9 1 8 2 6

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

S04

The Liquid Effluent Retention Facility (LERF) is being constructed under interim status expansion in accordance with the Washington Administrative Code (WAC) 173-303-805 "Interim Status Permits." The LERF will provide interim storage of mixed waste process condensate effluent from the 242-A Evaporator until treatment is available for compliance with the dangerous waste regulations for disposal.

The LERF will be a retention basin consisting of four cells (surface impoundments) (S04). Each retention basin cell has a design capacity of 6,500,000 gallons with a total capacity of 26,000,000 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 operation. In addition, the facility will treat and dispose of three non—listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

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

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): 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 waste is not generated in D(1))
1	F003	216,975,200	P	S04				Storage - Surface Impoundment
2	F005		↓	↓				↓
3	WT02							Included With Above
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								

9 3 1 2 9 9 1 8 2 8

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 LERF will recieve and store mixed waste process condensate effluent from the 242-A Evaporator until treatment is available. The mixed waste process condensate effluent will be regulated as a dangerous waste under WAC 173-303.

The mixed waste process condensate effluent will be regulated as a dangerous waste due to the presence of spent nonhalogenated solvents (F003 and F005) and for the toxicity of ammonia (WT02, toxic state-only dangerous waste).

The Estimated Annual Quantity of Dangerous Waste of 216,975,200 pounds per year is based on approximately 26,000,000 gallons of waste, or the total capacity of the four cells in the retention basin.

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 the 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
John D. Wagoner Manager, Richland Operations United States Department of Energy	John D. Wagoner	6/26/91

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

9312916829

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.

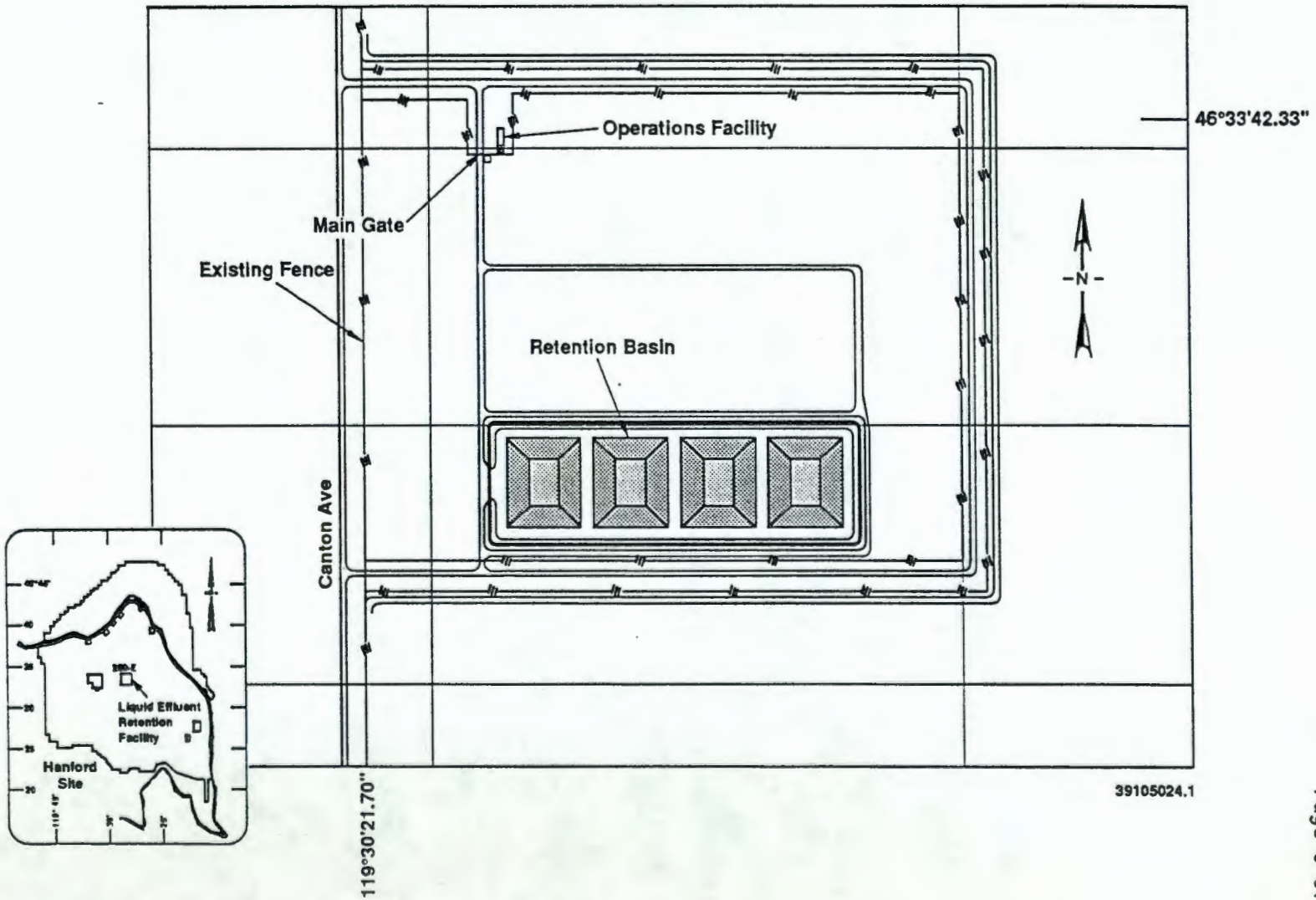
Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
Richland Operations Office

Date 6/26/91

Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

Date 5/28/91

200 East Area Liquid Effluent Retention Facility Site Plan



LIQUID EFFLUENT RETENTION FACILITY

UNDER CONSTRUCTION

46°33'42.33"
119°30'21.70"

90060637-1CN
(PHOTO TAKEN 1990)

9 3 1 2 9 3 9 1 8 3 2

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

FORM 3

DANGEROUS WASTE PERMIT APPLICATION

1. 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.
		5 2

FOR EXISTING FACILITIES, PROVIDE THE DATE *(mo., day, & yr.)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to 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 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. 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 2	31,000	G		7				
2					8				
3					9				
4					10				

CONTINUE ON REVERSE

9 3 1 2 9 9 1 8 3 3

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.

S02

The 241-CX Tank System is located east of B Plant in the 200 East Area of the Hanford Facility. The 241-CX Tank System consists of two Tanks--241-CX-70 (CX-70) and 241-CX-71 (CX-71). Processes that were associated with these two tanks are as follows.

Tank CX-70 was used for approximately 1 year in the early 1950's to store high-level process waste from the reduction/oxidation (REDOX) pilot studies. The term REDOX was used for the reduction/oxidation chemical process separating plutonium and uranium from irradiated reactor fuels. Waste removal activities for Tank 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 mixed waste from Tank CX-70 to the Double-Shell Tank System. Approximately 140,000 gallons (529,900 liters) of water were used to sluice the original waste volume of 10,300 gallons (38,986 liters) down to 750 gallons (2,839 liters). This volume remained in Tank CX-70 until December 20, 1991 at which time the waste was placed in approved containers and then transferred to the Transuranic Storage and Assay Facility (TRUSAF). The design capacity of Tank CX-70 is 30,000 gallons (113,550 liters).

Tank CX-71 was used from 1952 through 1957 for neutralizing the 201-C process condensate and the coil and condenser cooling water. Tank CX-71 received process condensates from REDOX, plutonium-uranium extraction (PUREX) operations, and decontamination flushes following the completion of PUREX operations. The mixed waste in Tank CX-71 contains large volumes of liquid process effluents that were passed through the tank for the purpose of neutralization by contact with a bed of limestone aggregate placed in the tank for this purpose. After the June 1957 decontamination flushes, Tank CX-71 was placed out of service. The design capacity of Tank CX-71 is 1,000 gallons (3,785 liters).

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)*	B. PROCESSES 1. PROCESS CODES *(enter)*	B. 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*

9 3 1 2 9 - 9 1 8 3 4

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

I.D. NUMBER *(entered from page 1)*: 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	19,000	P	S02	Storage--Tank 241-CX-70
2	D007	↓	↓	↓	↓
3	WT02	↓	↓	↓	Included with above.
4	WT02	33,400	P	S02	Storage--Tank 241-CX-71
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

9 3 1 2 9 9 1 8 3 5

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.

Tank CX-70 was used to store high-level process mixed waste from the REDOX pilot studies. The mixed waste was considered corrosive (D002) due to the presence of sodium hydroxide. The mixed waste consisted of toxicity characteristic waste chromium (D007) and a toxic state-only waste (WT02, dangerous waste). The estimated annual quantity of waste that was treated and stored in Tank CX-70 was approximately 19,000 pounds (8,630 kilograms).

Tank CX-71 was used to store a mixture of materials that remained after large volumes of liquid process effluents were passed through the tank for the purpose of neutralization by contact with a bed of limestone aggregate placed in the tank for this purpose. The waste was considered toxic state-only waste (WT02, dangerous waste) due to the presence of cyanides and nitrates. The estimated annual quantity of waste that was treated and stored in Tank CX-71 was approximately 33,400 pounds (15,171 kilograms).

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 the 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
John D. Wagoner, Manager U.S. Department of Energy Richland Field Office	John D. Wagoner	8/14/92

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

9 3 1 2 9 9 1 8 3 6

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 D. Wagoner — 9/28/92

Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
DOE Richland Field Office

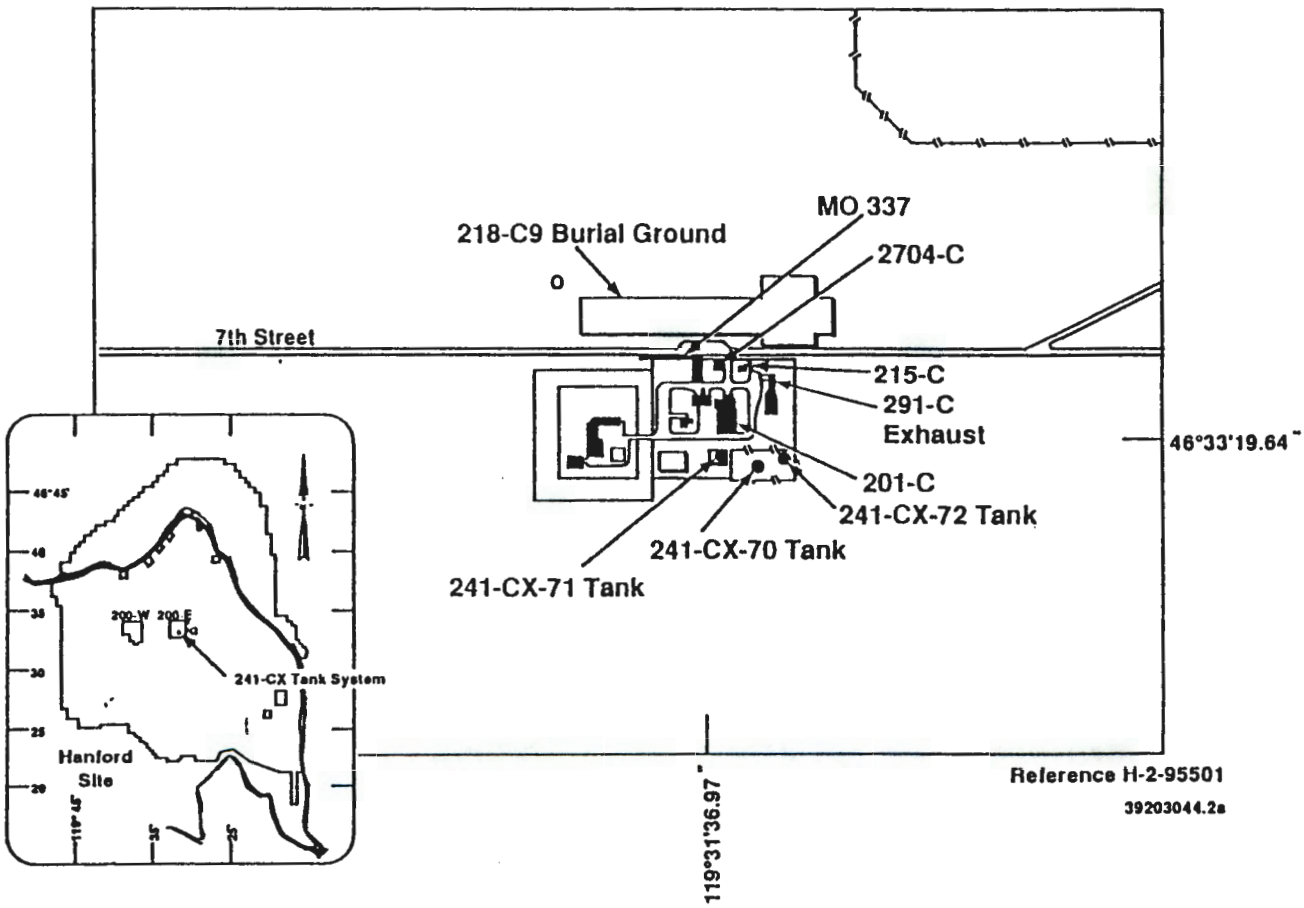
Date

Thomas M. Anderson — 6/25/92

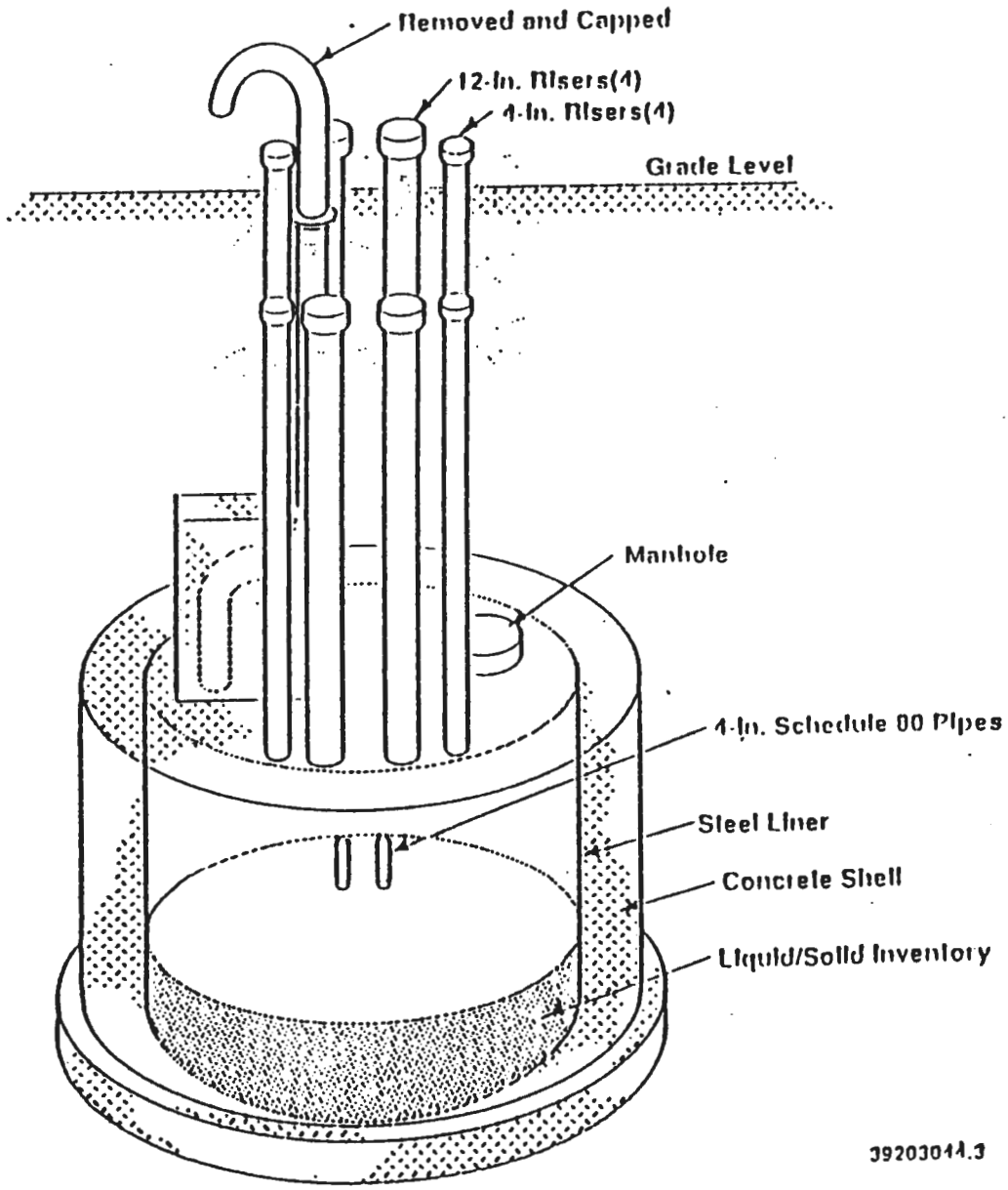
Co-Operator
Thomas M. Anderson, President
Westinghouse Hanford Company

Date

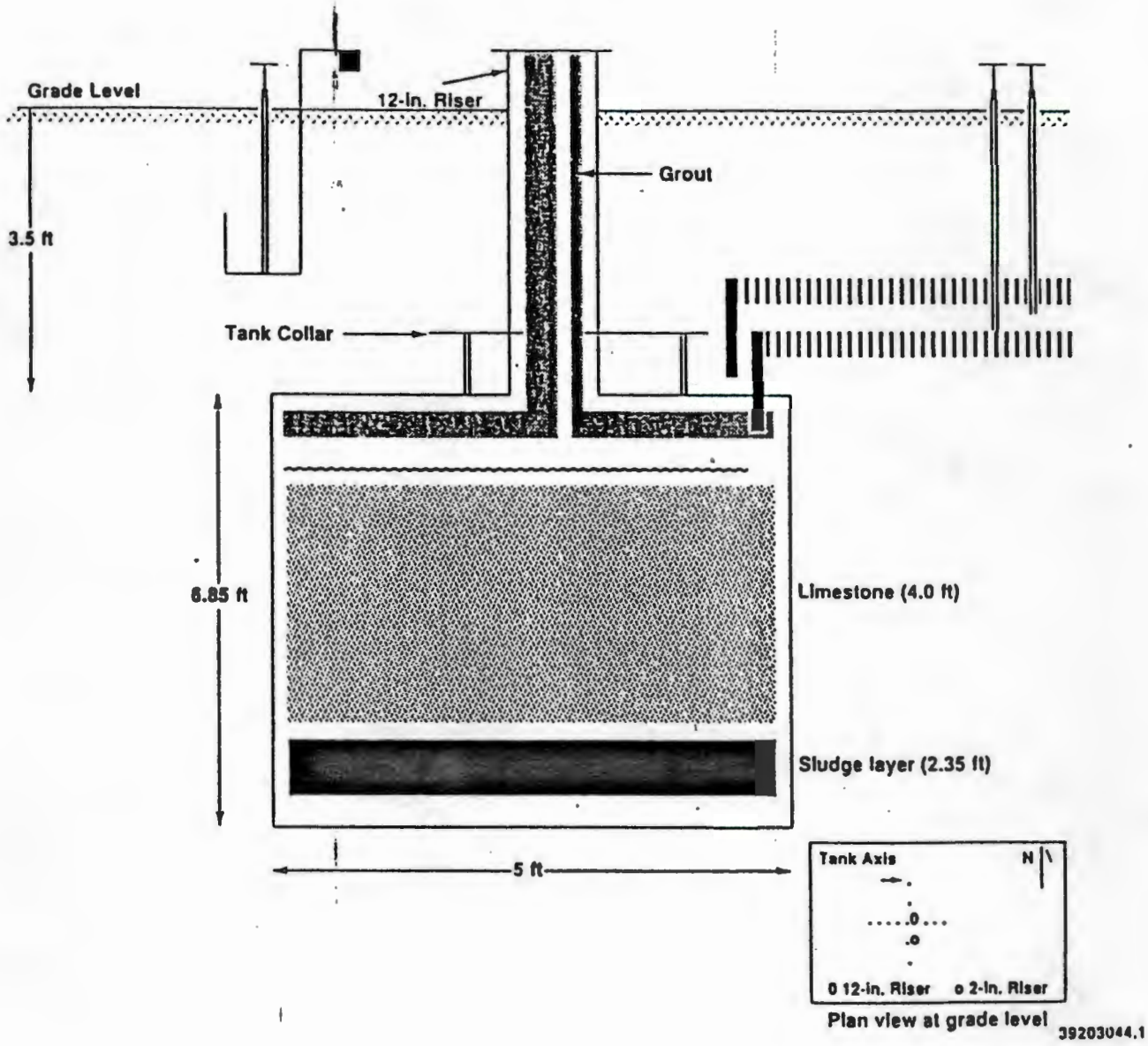
241-CX Tank System
Site Plan



Tank 241-CX-70



Tank 241-CX-71
Cross-Sectional View



9 3 1 2 9 9 1 8 4 0

241-CX TANK SYSTEM

TANK 241-CX-70

46°33'20"
119°31'37"

127164-27CN
(PHOTO TAKEN 1986)

9 3 1 2 9 7 9 1 8 4 1

241-CX TANK SYSTEM

TANK 241-CX-71

46°33'20"
119°31'37"

89080844-10CN
(PHOTO TAKEN 1989)

9 3 1 2 9 7 9 1 8 4 2

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

FORM 3

DANGEROUS WASTE PERMIT APPLICATION

1. 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.
0 3	1 8	7 7

FOR EXISTING FACILITIES, PROVIDE THE DATE *(mo., day, & yr.)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to 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 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	D
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. 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	D 8 1	86,400	U		*7*				
2					*8*				
3					*9*				
4					*10*				

CONTINUE ON REVERSE

9 3 1 2 9 9 1 8 4 3

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.

D81

The 216-A-37-1 Crib (Crib) began operation in March 1977 and was used for the percolation of the 242-A Evaporator (Evaporator) process condensate to the soil column. The process design capacity of 86,400 gallons (327,000 liters) per day is based on the daily output of the Evaporator process condensate discharged to the Crib. Discharge of the Evaporator process condensate to the Crib was terminated on April 12, 1989, when it was determined that the Evaporator process condensate contained or could have contained mixed waste regulated under Washington Administrative Code 173-303. The Crib will remain out of service and will be closed under interim status. A closure plan for the final disposition of this disposal unit is planned.

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*

9 3 1 2 9 9 1 8 4 4

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

I.D. NUMBER *(entered from page 1)*

W	A	7	8	9	0	0	0	8	9	6	7

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

LINE NO.	A. DANGEROUS WASTE NO. *(enter code)*	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE *(enter code)*	D. PROCESSES 1. PROCESS CODES *(enter)*	D. PROCESSES 2. PROCESS DESCRIPTION *(if a code is not entered in D(1))*
1	F001	108,290,000	P	D81	Disposal - Landfill (Percolation)
2	F002				
3	F003				
4	F004				
5	F005				
6	WT02				Included With Above
7					
8					
9					
10					
11					
12					
13					
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23					
24					
25					
26					

9312991845

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 Crib was taken out of service on April 12, 1989, and no longer receives dangerous waste. A closure plan for the final disposition of this disposal unit is planned. A description of the dangerous waste discharged to the Crib is as follows.

The 242-A Evaporator process condensate is regulated as a mixed waste due to the presence of spent halogenated and nonhalogenated solvents (F001, F002, F003, F004, and F005), and for the toxicity of ammonia (WT02, toxic state-only dangerous waste). The Estimated Annual Quantity of Dangerous Waste (item III.B.1.) of 108,290,000 pounds (4,912,000 kilograms) represents the maximum annual output of 242-A Evaporator process condensate during operating campaigns.

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 the 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
John D. Wagoner, Manager U.S. Department of Energy Richland Operations Office	for [signature]	5-1-93

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

9 3 1 2 9 9 1 8 4 6

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.

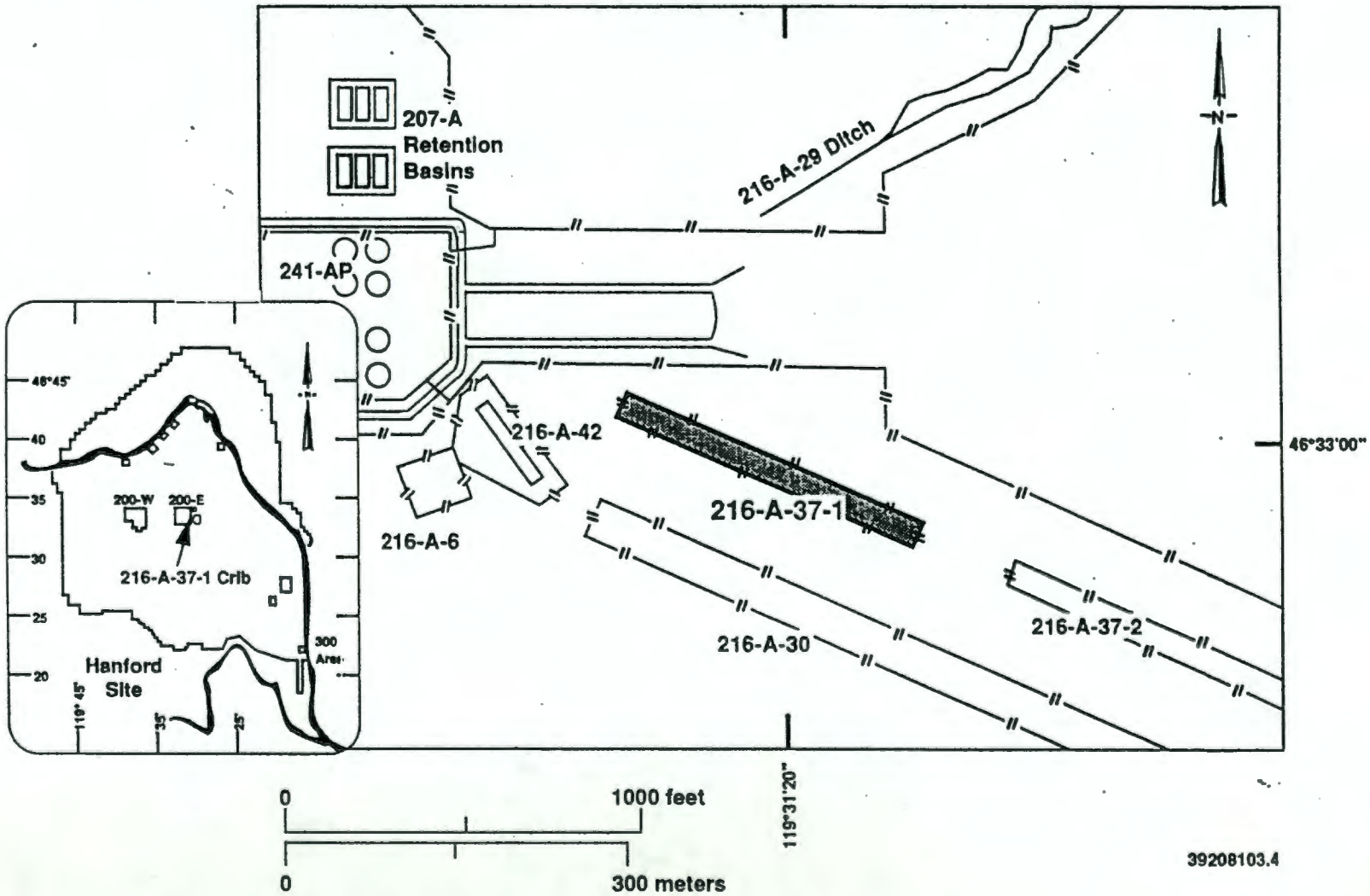
Owner/Operator
for John D. Wagoner, Manager
U.S. Department of Energy
Richland Operations Office

Date: 5 4-1-93

Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

Date: 4/7/93

216-A-37-1 Crib
Site Plan



216-A-37-1 CRIB

46°33'00"
119°31'20"

8706421-25CN
(PHOTO TAKEN 1987)

9 3 1 2 9 3 9 1 8 4 9

DOE/RL-88-21
Volume 3 of 3

UC-630, 721

Hanford Facility Dangerous Waste Part A Permit Application

Date Published
April 1993

United States
Department of Energy
P.O. Box 550
Richland, Washington 99352

Approved for Public Release

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HANFORD FACILITY DANGEROUS WASTE PART A PERMIT APPLICATION

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d = Dangerous waste treatment, storage, and/or disposal unit.
m = Mixed waste treatment, storage, and/or disposal unit.
a = Active treatment, storage, and/or disposal unit.
c = Treatment, storage, and/or disposal unit closing under interim status.
♦ = Revised this issue.

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♦ = Revised this issue.

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d = Dangerous waste treatment, storage, and/or disposal unit.
m = Mixed waste treatment, storage, and/or disposal unit.
a = Active treatment, storage, and/or disposal unit.
c = Treatment, storage, and/or disposal unit closing under interim status.
♦ = Revised this issue.

Please print or type in the unshaded areas only
(All 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

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. 0 9 DAY YR 6 8 — FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to 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
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	T01	25	V		7				
2	T04	100	V		8				
3	S01	2,000	L		9				
4					10				

9 3 1 2 9 9 1 8 5 5

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, T04, S01

The 3718-F Treatment and Storage Facility (3718-F Facility) was used to treat and store alkali metal waste (sodium, lithium, and sodium potassium alloy) from the Fast Flux Test Facility (FFTF) and from various laboratories that used alkali metals for experiments. The alkali metal waste was treated in a burn shed equipped with two burn pans inside a containment catch pan, a fume scrubber, or two chemical reaction tanks. The chemical reaction tanks were used to treat scrap equipment and piping that contain alkali metal waste by dissolving the waste using either water, methanol, isopropyl alcohol, or 2-butoxy ethanol (T01). The treatment of the bulk alkali metal waste consisted of burning the metals in the burn shed to eliminate their ignitability and reactive characteristics. The gaseous emissions produced by the burn process were removed using a fume scrubber. Because of the corrosivity of the waste (e.g., sodium hydroxide) after the burn treament, the waste was neutralized with acid to a pH of between 2.0 to 12.5 (T04). The 3718-F Facility Storage Building was used to store U.S. Department of Transportation-specification 55-gallon (208-liter) drums of alkali metal waste before treatment (S01).

The 3718-F Facility alkali metal waste treatment process was halted in June 1987 and storage of the alkali metal waste was halted in May 1989.

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 on 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 chromic 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 1 D 8 0	
X-2	D 0 0 2	400	P	T 0 1 D 8 0	
X-3	D 0 0 1	100	P	T 0 1 D 8 0	
X-4	D 0 0 2			T 0 1 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 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	D001	2,000	K	T01	T04	S01		Treatment-Tank-Chemical/ Treatment-Other-Thermal/
2	D002							Storage-Container
3	D003							
4	WT01							
5	WT02							Included With Above
6								
7								
8								
9								
10								
11								
12								
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14								
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25								
26								

9 3 1 2 9 9 1 8 5 7

Continued from the front.

IV. DESCRIPTION OF DANGEROUS WASTES *(continued)*

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

The 3718-F Facility was used for the treatment and storage of alkali metal waste. The alkali metal waste was considered characteristic waste due to the ignitability (D001) and reactivity (D003) of the alkali metals and as a toxic state-only waste [WT01 (extremely hazardous waste) and WT02 (dangerous waste)]. The alkali metal waste when treated is considered corrosive (D002) because of the presence of sodium hydroxide. The estimated annual quantity of waste that was treated and stored at the 3718-F Facility was approximately 2000 kilograms (4409 pounds).

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 the 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
John D. Wagoner, Manager United States Department of Energy DOE Richland Field Office	Edward J. Galda	12/20/91

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

9 3 1 2 9 9 1 8 5 8

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.

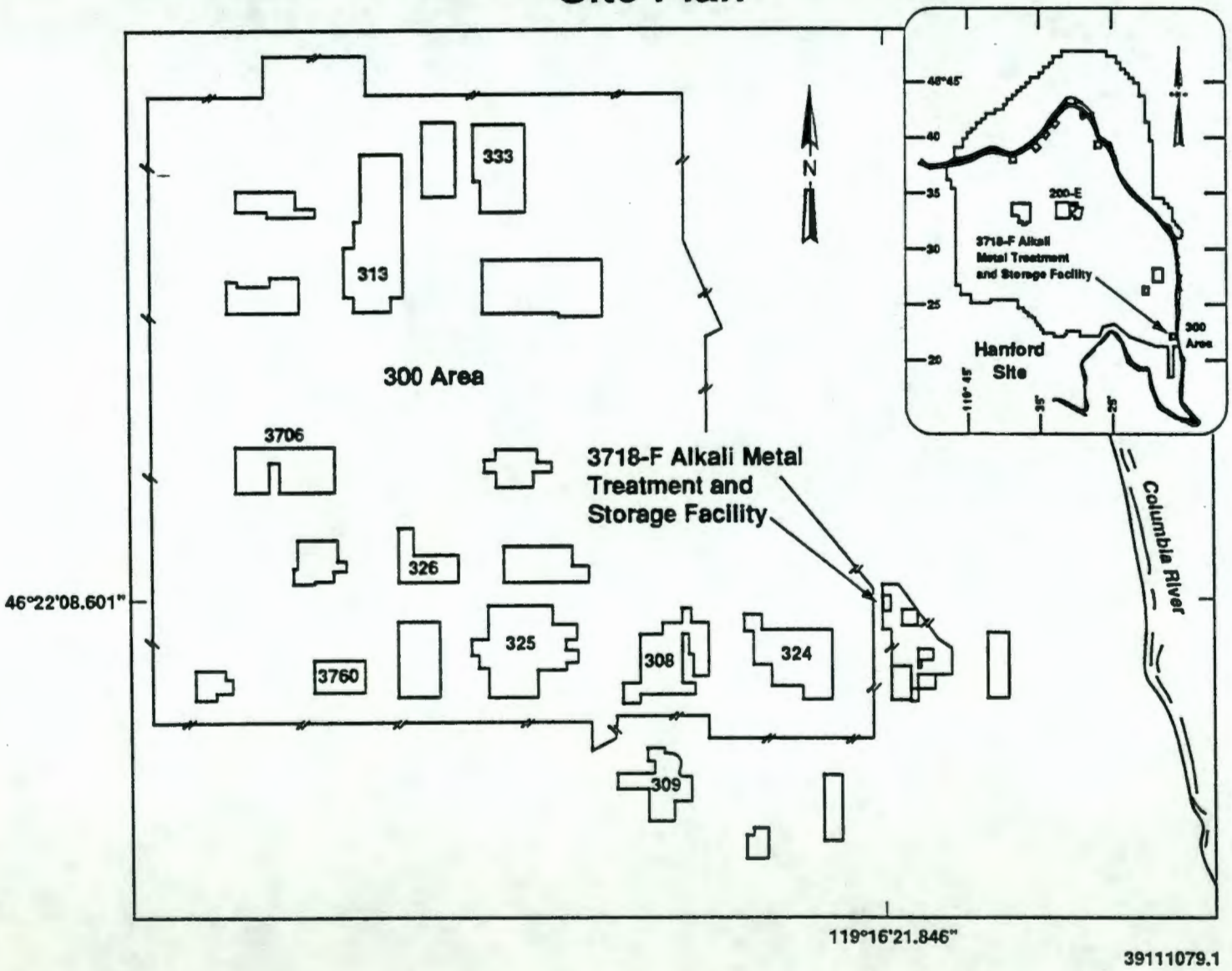
Edward D. Goldberg
Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
DOE Richland Field Office

12/20/91
Date

Thomas M. Anderson
Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

11/26/91
Date

3817-F Alkali Metal Treatment and Storage Facility Site Plan



3718-F ALKALI METAL TREATMENT AND STORAGE AREA

46°22'08.601"
119°16'21.846"

91071032-1CN
(PHOTO TAKEN 1991)

9 3 1 2 9 7 9 1 8 6 1

Please print or type in the unshaded areas only.
(Enter a dash in the unshaded areas if the information is not applicable.)

FORM

DANGEROUS WASTE PERMIT APPLICATION

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

FOR OFFICIAL USE ONLY

APPLICATION RECEIVED	DATE RECEIVED	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.)

FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (see the codes in the text)

☐ 2. NEW FACILITY (Complete item below)

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 mentioned 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	K
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 300 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	S01	600	G	
X-2	T03	20	E	
	T04	(annual average) 28	U	
1	S01	1000	G	
2				
3				

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
5				
6				
7				
8				
9				
10				

(Continued on reverse)

9 3 1 2 9 - 9 1 8 6 2

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.

The 325 Hazardous Waste Treatment Unit (325 HWTU) is located in rooms 520 and 528 of the 325 Building. Approximately 55 gallons of radioactive mixed waste can be treated per day in the 325 HWTU using grout and alkali metal treatments.

The 3100 Hazardous Waste Treatment Unit (3100 HWTU) will be a single story building with an area of approximately 10,500 square feet. Approximately 10,000 gallons of dangerous waste will be treated annually in this unit. Treatment will include carbon absorption, oxidation reduction, deactivation, vitrification, liquid-liquid extraction, encapsulation, neutralization, precipitation, recovery of acids and bases, recovery of organics, stabilization, controlled reaction with water, photo catalytic destruction, and ceramic melting.

Storage capacity in the 325 HWTU is 1,000 gallons and in the 3100 HWTU will be 5,000 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 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

9 3 1 2 9 9 1 8 6 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)				2. PROCESS DESCRIPTION (If a code is not entered in D(1))
1	D001	10,000	K	S01	T04			Treatment
2	D002	5,000	K	S01	T04			Treatment
3	D003	500	K	S01	T04			Treatment
4	D004	200	K	S01	T04			Treatment
5	D005	200	K	S01	T04			Treatment
6	D006	200	K	S01	T04			Treatment
7	D007	10,000	K	S01	T04			Treatment
8	D008	50,000	K	S01	T04			Treatment
9	D009	400	K	S01	T04			Treatment
10	D010	50	K	S01	T04			Treatment
11	D011	200	K	S01	T04			Treatment
12	D018	200	K	S01	T04			Treatment
13	D019	200	K	S01	T04			Treatment
14	D020	200	K	S01	T04			Treatment
15	D021	200	K	S01	T04			Treatment
16	D022	200	K	S01	T04			Treatment
17	D023	200	K	S01	T04			Treatment
18	D024	200	K	S01	T04			Treatment
19	D025	200	K	S01	T04			Treatment
20	D026	2,000	K	S01	T04			Treatment
21	D027	200	K	S01	T04			Treatment
22	D028	200	K	S01	T04			Treatment
23	D029	200	K	S01	T04			Treatment
24	D030	200	K	S01	T04			Treatment
25	D031	200	K	S01	T04			Treatment
26	D032	200	K	S01	T04			Treatment

9 3 1 2 9 9 1 8 6 4

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): 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)				2. PROCESS DESCRIPTION (If a code is not entered in D(1))
1	D033	200	K	S01	T04			Treatment
2	D034	200	K	S01	T04			Treatment
3	D035	200	K	S01	T04			Treatment
4	D036	200	K	S01	T04			Treatment
5	D037	200	K	S01	T04			Treatment
6	D038	200	K	S01	T04			Treatment
7	D039	200	K	S01	T04			Treatment
8	D040	200	K	S01	T04			Treatment
9	D041	200	K	S01	T04			Treatment
10	D042	200	K	S01	T04			Treatment
11	D043	200	K	S01	T04			Treatment
12	WT01	20,000	K	S01	T04			Treatment
13	WT02	10,000	K	S01	T04			Treatment
14	WP01	5,000	K	S01	T04			Treatment
15	WP02	1,000	K	S01	T04			Treatment
16	WP03	1,000	K	S01	T04			Treatment
17	WC01	1,000	K	S01	T04			Treatment
18	WC02	1,000	K	S01	T04			Treatment
19	F001	2,000	K	S01	T04			Treatment
20	F002	2,000	K	S01	T04			Treatment
21	F003	3,000	K	S01	T04			Treatment
22	F004	1,000	K	S01	T04			Treatment
23	F005	2,000	K	S01	T04			Treatment
24	F027	200	K	S01	T04			Treatment
25	U001	200	K	S01	T04			Treatment
26	U002	200	K	S01	T04			Treatment

9 3 1 2 9 9 1 8 6 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): 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	U003	200	K	S01	T04			Treatment
2	U004	200	K	S01	T04			Treatment
3	U005	200	K	S01	T04			Treatment
4	U006	200	K	S01	T04			Treatment
5	U007	200	K	S01	T04			Treatment
6	U008	200	K	S01	T04			Treatment
7	U009	200	K	S01	T04			Treatment
8	U010	200	K	S01	T04			Treatment
9	U011	200	K	S01	T04			Treatment
10	U012	200	K	S01	T04			Treatment
11	U014	200	K	S01	T04			Treatment
12	U015	200	K	S01	T04			Treatment
13	U016	200	K	S01	T04			Treatment
14	U017	200	K	S01	T04			Treatment
15	U018	200	K	S01	T04			Treatment
16	U019	200	K	S01	T04			Treatment
17	U020	200	K	S01	T04			Treatment
18	U021	200	K	S01	T04			Treatment
19	U022	200	K	S01	T04			Treatment
20	U023	200	K	S01	T04			Treatment
21	U024	200	K	S01	T04			Treatment
22	U025	200	K	S01	T04			Treatment
23	U026	200	K	S01	T04			Treatment
24	U027	200	K	S01	T04			Treatment
25	U028	200	K	S01	T04			Treatment
26	U029	200	K	S01	T04			Treatment

9 3 1 2 9 9 1 8 6 6

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): 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	U 0 3 0	200	K	S 0 1	T 0 4			Treatment
2	U 0 3 1	200	K	S 0 1	T 0 4			Treatment
3	U 0 3 2	200	K	S 0 1	T 0 4			Treatment
4	U 0 3 3	200	K	S 0 1	T 0 4			Treatment
5	U 0 3 4	200	K	S 0 1	T 0 4			Treatment
6	U 0 3 5	200	K	S 0 1	T 0 4			Treatment
7	U 0 3 6	200	K	S 0 1	T 0 4			Treatment
8	U 0 3 7	200	K	S 0 1	T 0 4			Treatment
9	U 0 3 8	200	K	S 0 1	T 0 4			Treatment
10	U 0 3 9	200	K	S 0 1	T 0 4			Treatment
11	U 0 4 1	200	K	S 0 1	T 0 4			Treatment
12	U 0 4 2	200	K	S 0 1	T 0 4			Treatment
13	U 0 4 3	200	K	S 0 1	T 0 4			Treatment
14	U 0 4 4	200	K	S 0 1	T 0 4			Treatment
15	U 0 4 5	200	K	S 0 1	T 0 4			Treatment
16	U 0 4 6	200	K	S 0 1	T 0 4			Treatment
17	U 0 4 7	200	K	S 0 1	T 0 4			Treatment
18	U 0 4 8	200	K	S 0 1	T 0 4			Treatment
19	U 0 4 9	200	K	S 0 1	T 0 4			Treatment
20	U 0 5 0	200	K	S 0 1	T 0 4			Treatment
21	U 0 5 1	200	K	S 0 1	T 0 4			Treatment
22	U 0 5 2	200	K	S 0 1	T 0 4			Treatment
23	U 0 5 3	200	K	S 0 1	T 0 4			Treatment
24	U 0 5 5	200	K	S 0 1	T 0 4			Treatment
25	U 0 5 6	200	K	S 0 1	T 0 4			Treatment
26	U 0 5 7	200	K	S 0 1	T 0 4			Treatment

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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)

	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)				2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	U058	200	K	S01	T04			Treatment
2	U059	200	K	S01	T04			Treatment
3	U060	200	K	S01	T04			Treatment
4	U061	200	K	S01	T04			Treatment
5	U062	200	K	S01	T04			Treatment
6	U063	200	K	S01	T04			Treatment
7	U064	200	K	S01	T04			Treatment
8	U066	200	K	S01	T04			Treatment
9	U067	200	K	S01	T04			Treatment
10	U068	200	K	S01	T04			Treatment
11	U069	200	K	S01	T04			Treatment
12	U070	200	K	S01	T04			Treatment
13	U071	200	K	S01	T04			Treatment
14	U072	200	K	S01	T04			Treatment
15	U073	200	K	S01	T04			Treatment
16	U074	200	K	S01	T04			Treatment
17	U075	200	K	S01	T04			Treatment
18	U076	200	K	S01	T04			Treatment
19	U077	200	K	S01	T04			Treatment
20	U078	200	K	S01	T04			Treatment
21	U079	200	K	S01	T04			Treatment
22	U080	200	K	S01	T04			Treatment
23	U081	200	K	S01	T04			Treatment
24	U082	200	K	S01	T04			Treatment
25	U083	200	K	S01	T04			Treatment
26	U084	200	K	S01	T04			Treatment

9 3 1 2 9 9 1 8 6 8

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)

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	U085	200	K	S01	T04			Treatment
2	U086	200	K	S01	T04			Treatment
3	U087	200	K	S01	T04			Treatment
4	U088	200	K	S01	T04			Treatment
5	U089	200	K	S01	T04			Treatment
6	U090	200	K	S01	T04			Treatment
7	U091	200	K	S01	T04			Treatment
8	U092	200	K	S01	T04			Treatment
9	U093	200	K	S01	T04			Treatment
10	U094	200	K	S01	T04			Treatment
11	U095	200	K	S01	T04			Treatment
12	U096	200	K	S01	T04			Treatment
13	U097	200	K	S01	T04			Treatment
14	U098	200	K	S01	T04			Treatment
15	U099	200	K	S01	T04			Treatment
16	U101	200	K	S01	T04			Treatment
17	U102	200	K	S01	T04			Treatment
18	U103	200	K	S01	T04			Treatment
19	U105	200	K	S01	T04			Treatment
20	U106	200	K	S01	T04			Treatment
21	U107	200	K	S01	T04			Treatment
22	U108	200	K	S01	T04			Treatment
23	U109	200	K	S01	T04			Treatment
24	U110	200	K	S01	T04			Treatment
25	U111	200	K	S01	T04			Treatment
26	U112	200	K	S01	T04			Treatment

9312291869

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): 1A789000897

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	U113	200	K	S01	T04			Treatment
2	U114	200	K	S01	T04			Treatment
3	U115	200	K	S01	T04			Treatment
4	U116	200	K	S01	T04			Treatment
5	U117	200	K	S01	T04			Treatment
6	U118	200	K	S01	T04			Treatment
7	U119	200	K	S01	T04			Treatment
8	U120	200	K	S01	T04			Treatment
9	U121	200	K	S01	T04			Treatment
10	U122	200	K	S01	T04			Treatment
11	U123	200	K	S01	T04			Treatment
12	U124	200	K	S01	T04			Treatment
13	U125	200	K	S01	T04			Treatment
14	U126	200	K	S01	T04			Treatment
15	U127	200	K	S01	T04			Treatment
16	U128	200	K	S01	T04			Treatment
17	U129	200	K	S01	T04			Treatment
18	U130	200	K	S01	T04			Treatment
19	U131	200	K	S01	T04			Treatment
20	U132	200	K	S01	T04			Treatment
21	U133	200	K	S01	T04			Treatment
22	U134	200	K	S01	T04			Treatment
23	U135	200	K	S01	T04			Treatment
24	U136	200	K	S01	T04			Treatment
25	U137	200	K	S01	T04			Treatment
26	U138	200	K	S01	T04			Treatment

9312916870

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)				2. PROCESS DESCRIPTION (If a code is not entered in D(1))
1	U140	200	K	S01	T04			Treatment
2	U141	200	K	S01	T04			Treatment
3	U142	200	K	S01	T04			Treatment
4	U143	200	K	S01	T04			Treatment
5	U144	200	K	S01	T04			Treatment
6	U145	200	K	S01	T04			Treatment
7	U146	200	K	S01	T04			Treatment
8	U147	200	K	S01	T04			Treatment
9	U148	200	K	S01	T04			Treatment
10	U149	200	K	S01	T04			Treatment
11	U150	200	K	S01	T04			Treatment
12	U151	200	K	S01	T04			Treatment
13	U152	200	K	S01	T04			Treatment
14	U153	200	K	S01	T04			Treatment
15	U154	200	K	S01	T04			Treatment
16	U155	200	K	S01	T04			Treatment
17	U156	200	K	S01	T04			Treatment
18	U157	200	K	S01	T04			Treatment
19	U158	200	K	S01	T04			Treatment
20	U159	200	K	S01	T04			Treatment
21	U160	200	K	S01	T04			Treatment
22	U161	200	K	S01	T04			Treatment
23	U162	200	K	S01	T04			Treatment
24	U163	200	K	S01	T04			Treatment
25	U164	200	K	S01	T04			Treatment
26	U165	200	K	S01	T04			Treatment

9312291871

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): A789000896 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	U166	200	K	S01	T04			Treatment
2	U167	200	K	S01	T04			Treatment
3	U168	200	K	S01	T04			Treatment
4	U169	200	K	S01	T04			Treatment
5	U170	200	K	S01	T04			Treatment
6	U171	200	K	S01	T04			Treatment
7	U172	200	K	S01	T04			Treatment
8	U173	200	K	S01	T04			Treatment
9	U174	200	K	S01	T04			Treatment
10	U176	200	K	S01	T04			Treatment
11	U177	200	K	S01	T04			Treatment
12	U178	200	K	S01	T04			Treatment
13	U179	200	K	S01	T04			Treatment
14	U180	200	K	S01	T04			Treatment
15	U181	200	K	S01	T04			Treatment
16	U182	200	K	S01	T04			Treatment
17	U183	200	K	S01	T04			Treatment
18	U184	200	K	S01	T04			Treatment
19	U185	200	K	S01	T04			Treatment
20	U186	200	K	S01	T04			Treatment
21	U187	200	K	S01	T04			Treatment
22	U188	200	K	S01	T04			Treatment
23	U189	200	K	S01	T04			Treatment
24	U190	200	K	S01	T04			Treatment
25	U191	200	K	S01	T04			Treatment
26	U192	200	K	S01	T04			Treatment

9 3 1 2 9 9 1 8 7 2

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	U193	200	K	S01	T04			Treatment
2	U194	200	K	S01	T04			Treatment
3	U196	200	K	S01	T04			Treatment
4	U197	200	K	S01	T04			Treatment
5	U200	200	K	S01	T04			Treatment
6	U201	200	K	S01	T04			Treatment
7	U202	200	K	S01	T04			Treatment
8	U203	200	K	S01	T04			Treatment
9	U204	200	K	S01	T04			Treatment
10	U205	200	K	S01	T04			Treatment
11	U206	200	K	S01	T04			Treatment
12	U207	200	K	S01	T04			Treatment
13	U208	200	K	S01	T04			Treatment
14	U209	200	K	S01	T04			Treatment
15	U210	200	K	S01	T04			Treatment
16	U211	200	K	S01	T04			Treatment
17	U213	200	K	S01	T04			Treatment
18	U214	200	K	S01	T04			Treatment
19	U215	200	K	S01	T04			Treatment
20	U216	200	K	S01	T04			Treatment
21	U217	200	K	S01	T04			Treatment
22	U218	200	K	S01	T04			Treatment
23	U219	200	K	S01	T04			Treatment
24	U220	200	K	S01	T04			Treatment
25	U221	200	K	S01	T04			Treatment
26	U222	200	K	S01	T04			Treatment

9312291873

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): 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	U223	200	K	S01 T04	Treatment
2	U225	200	K	S01 T04	Treatment
3	U226	200	K	S01 T04	Treatment
4	U227	200	K	S01 T04	Treatment
5	U228	200	K	S01 T04	Treatment
6	U234	200	K	S01 T04	Treatment
7	U235	200	K	S01 T04	Treatment
8	U236	200	K	S01 T04	Treatment
9	U237	200	K	S01 T04	Treatment
10	U238	200	K	S01 T04	Treatment
11	U239	200	K	S01 T04	Treatment
12	U240	200	K	S01 T04	Treatment
13	U243	200	K	S01 T04	Treatment
14	U244	200	K	S01 T04	Treatment
15	U246	200	K	S01 T04	Treatment
16	U247	200	K	S01 T04	Treatment
17	U248	200	K	S01 T04	Treatment
18	U249	200	K	S01 T04	Treatment
19	U328	200	K	S01 T04	Treatment
20	U353	200	K	S01 T04	Treatment
21	U359	200	K	S01 T04	Treatment
22	P001	200	K	S01 T04	Treatment
23	P002	200	K	S01 T04	Treatment
24	P003	200	K	S01 T04	Treatment
25	P004	200	K	S01 T04	Treatment
26	P005	200	K	S01 T04	Treatment

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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): 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	P006	200	K	S01 T04	Treatment
2	P007	200	K	S01 T04	Treatment
3	P008	200	K	S01 T04	Treatment
4	P009	200	K	S01 T04	Treatment
5	P010	200	K	S01 T04	Treatment
6	P011	200	K	S01 T04	Treatment
7	P012	200	K	S01 T04	Treatment
8	P013	200	K	S01 T04	Treatment
9	P014	200	K	S01 T04	Treatment
10	P015	200	K	S01 T04	Treatment
11	P016	200	K	S01 T04	Treatment
12	P017	200	K	S01 T04	Treatment
13	P018	200	K	S01 T04	Treatment
14	P019	200	K	S01 T04	Treatment
15	P020	200	K	S01 T04	Treatment
16	P021	200	K	S01 T04	Treatment
17	P022	200	K	S01 T04	Treatment
18	P023	200	K	S01 T04	Treatment
19	P024	200	K	S01 T04	Treatment
20	P026	200	K	S01 T04	Treatment
21	P027	200	K	S01 T04	Treatment
22	P028	200	K	S01 T04	Treatment
23	P029	200	K	S01 T04	Treatment
24	P030	200	K	S01 T04	Treatment
25	P031	200	K	S01 T04	Treatment
26	P033	200	K	S01 T04	Treatment

9 3 1 2 9 9 1 8 7 5

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): 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)				2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	P034	200	K	S01	T04			Treatment
2	P036	200	K	S01	T04			Treatment
3	P037	200	K	S01	T04			Treatment
4	P038	200	K	S01	T04			Treatment
5	P039	200	K	S01	T04			Treatment
6	P040	200	K	S01	T04			Treatment
7	P041	200	K	S01	T04			Treatment
8	P042	200	K	S01	T04			Treatment
9	P043	200	K	S01	T04			Treatment
10	P044	200	K	S01	T04			Treatment
11	P045	200	K	S01	T04			Treatment
12	P046	200	K	S01	T04			Treatment
13	P047	200	K	S01	T04			Treatment
14	P048	200	K	S01	T04			Treatment
15	P049	200	K	S01	T04			Treatment
16	P050	200	K	S01	T04			Treatment
17	P051	200	K	S01	T04			Treatment
18	P054	200	K	S01	T04			Treatment
19	P056	200	K	S01	T04			Treatment
20	P057	200	K	S01	T04			Treatment
21	P058	200	K	S01	T04			Treatment
22	P059	200	K	S01	T04			Treatment
23	P060	200	K	S01	T04			Treatment
24	P062	200	K	S01	T04			Treatment
25	P063	200	K	S01	T04			Treatment
26	P064	200	K	S01	T04			Treatment

9 3 1 2 9 9 1 8 7 6

Continued from page 2

NOTE: Photocopy this page before completing if you have more than 20 wastes to list.

I.D. NUMBER (enter from page 1): 1A789000897

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	P065	200	K	S01	T04			Treatment
2	P066	200	K	S01	T04			Treatment
3	P067	200	K	S01	T04			Treatment
4	P068	200	K	S01	T04			Treatment
5	P069	200	K	S01	T04			Treatment
6	P070	200	K	S01	T04			Treatment
7	P071	200	K	S01	T04			Treatment
8	P072	200	K	S01	T04			Treatment
9	P073	200	K	S01	T04			Treatment
10	P074	200	K	S01	T04			Treatment
11	P075	200	K	S01	T04			Treatment
12	P076	200	K	S01	T04			Treatment
13	P077	200	K	S01	T04			Treatment
14	P078	200	K	S01	T04			Treatment
15	P081	200	K	S01	T04			Treatment
16	P082	200	K	S01	T04			Treatment
17	P084	200	K	S01	T04			Treatment
18	P085	200	K	S01	T04			Treatment
19	P087	200	K	S01	T04			Treatment
20	P088	200	K	S01	T04			Treatment
21	P089	200	K	S01	T04			Treatment
22	P092	200	K	S01	T04			Treatment
23	P093	200	K	S01	T04			Treatment
24	P094	200	K	S01	T04			Treatment
25	P095	200	K	S01	T04			Treatment
26	P096	200	K	S01	T04			Treatment

9 3 1 2 9 9 1 8 7 7

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)

1A	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)				2. PROCESS DESCRIPTION (If a code is not entered, D(1))
1	P097	200	K	S01	T04			Treatment
2	P098	200	K	S01	T04			Treatment
3	P099	200	K	S01	T04			Treatment
4	P101	200	K	S01	T04			Treatment
5	P102	200	K	S01	T04			Treatment
6	P103	200	K	S01	T04			Treatment
7	P104	200	K	S01	T04			Treatment
8	P105	200	K	S01	T04			Treatment
9	P106	200	K	S01	T04			Treatment
10	P107	200	K	S01	T04			Treatment
11	P108	200	K	S01	T04			Treatment
12	P109	200	K	S01	T04			Treatment
13	P110	200	K	S01	T04			Treatment
14	P111	200	K	S01	T04			Treatment
15	P112	200	K	S01	T04			Treatment
16	P113	200	K	S01	T04			Treatment
17	P114	200	K	S01	T04			Treatment
18	P115	200	K	S01	T04			Treatment
19	P116	200	K	S01	T04			Treatment
20	P118	200	K	S01	T04			Treatment
21	P119	200	K	S01	T04			Treatment
22	P120	200	K	S01	T04			Treatment
23	P121	200	K	S01	T04			Treatment
24	P122	200	K	S01	T04			Treatment
25	P123	200	K	S01	T04			Treatment
26								

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Continued from the front.

DESCRIPTION OF DANGEROUS WASTES (continued)

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

Routine treatments which will be conducted in the 325 HWTU will include stabilization and alkali metal treatments on small quantities of diverse dangerous and radioactive mixed waste generated from ongoing research and development activities.

Waste to be handled in the 325 HWTU will include listed waste, waste from nonspecific sources, characteristic waste and state-only waste which are also regulated under the Atomic Energy Act of 1954 (as amended).

Routine treatment which will be conducted in the 3100 HWTU will include carbon absorption, oxidation, reduction, deactivation, vitrification, liquid-liquid extraction, encapsulation, neutralization, precipitation, recovery of acids and bases, recovery of metals or inorganics, recovery of organics, stabilization, controlled reaction with water, photo catalytic destruction and ceramic melting. The 3100 HWTU will not handle RMW.

Processes that are utilized as appropriate in the 3100 HWTU include electropolishing, electrodissolvers, other electrochemically-enhanced processes for decontaminating metals and oxidizing non-metals; ion-exchange for selective removal of contaminants from waste solutions; waste concentrators, waste dissolution, precipitation/filtration and solvent extraction systems for separation of contaminants from slurries and sludge; solids washing for separation of contaminants from sludges, waste retrieval from storage tanks,

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 * This information appears on the attached drawing and 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

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 attache documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that th submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false informatio including the possibility of fine and imprisonment.

NAME (print or type)	SIGNATURE	DATE SIGNED
John Wagoner, Manager U.S. DOE, Richland Field Office		

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 attach documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that th submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false informatic including the possibility of fine and imprisonment.

NAME (print or type)	SIGNATURE	DATE SIGNED
SEE ATTACHMENT		

9312916879

Continued from page 4

IV. FACILITY DRAWING (see page 4)

catalytic destruction methods, induced oxidation and decomposition, microwave treatment, sludge-to-oil conversion technology, biological treatment processes, grouting, distillation, alkali metal treatment, plasma arc pyrolysis, in situ heating of soils and sludges for removal of organics, metal melting for volume reduction and immobilization of contaminated metals, induced oxidation of organic chemicals, thermal treatment, in can melting of soil waste, and waste vitrification.

WA7890008967

Form 1

325/3100 HAZARDOUS WASTE TREATMENT UNIT

XI. 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.

6-24-92

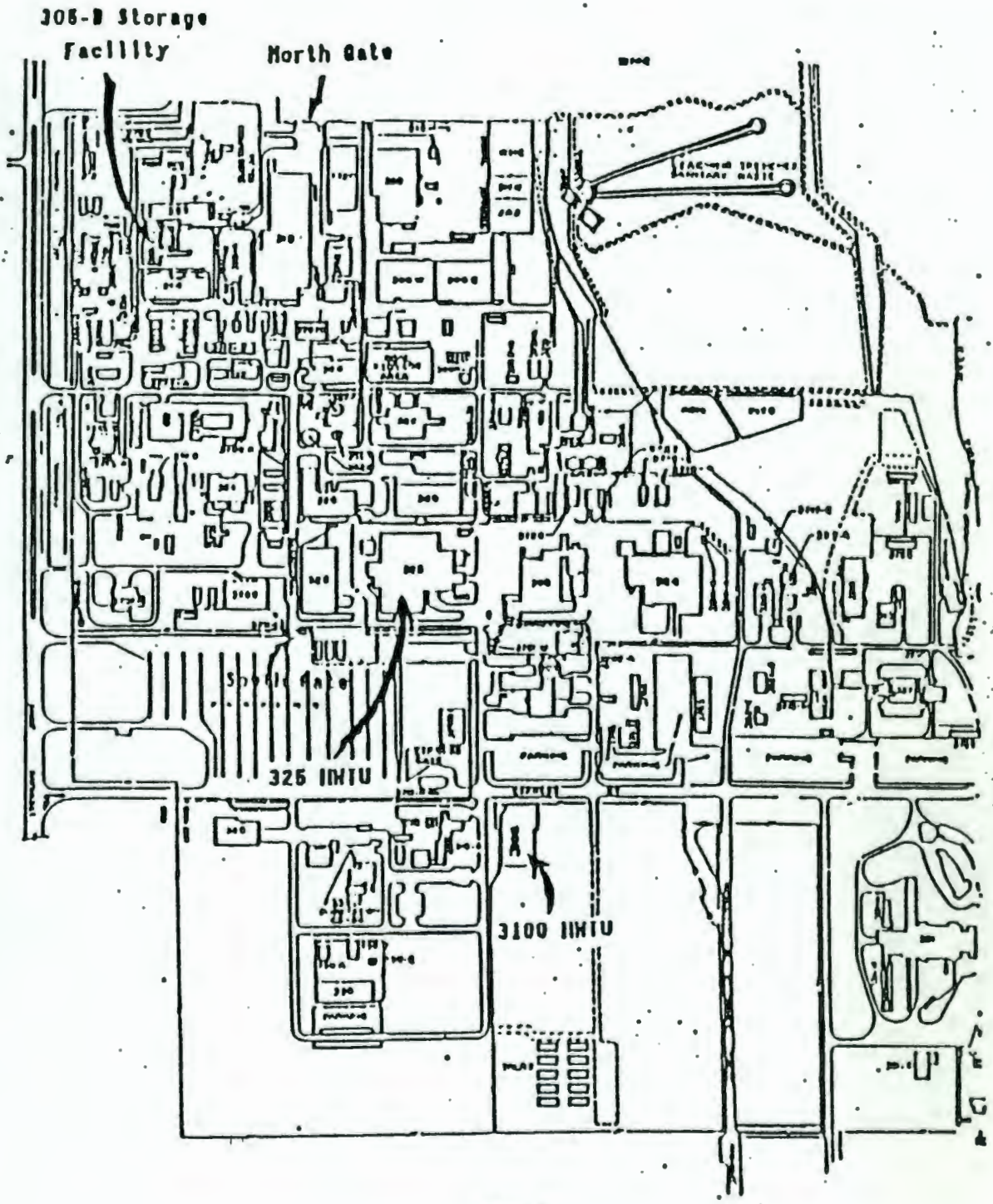
Owner/Operator
for John Wagoner
Department of Energy
Richland Field Office

Date

6-6-92

Co-Operator
William R. Wiley, Director
Pacific Northwest Laboratory

Date



300 Area

9 3 1 2 9 9 1 8 8 2

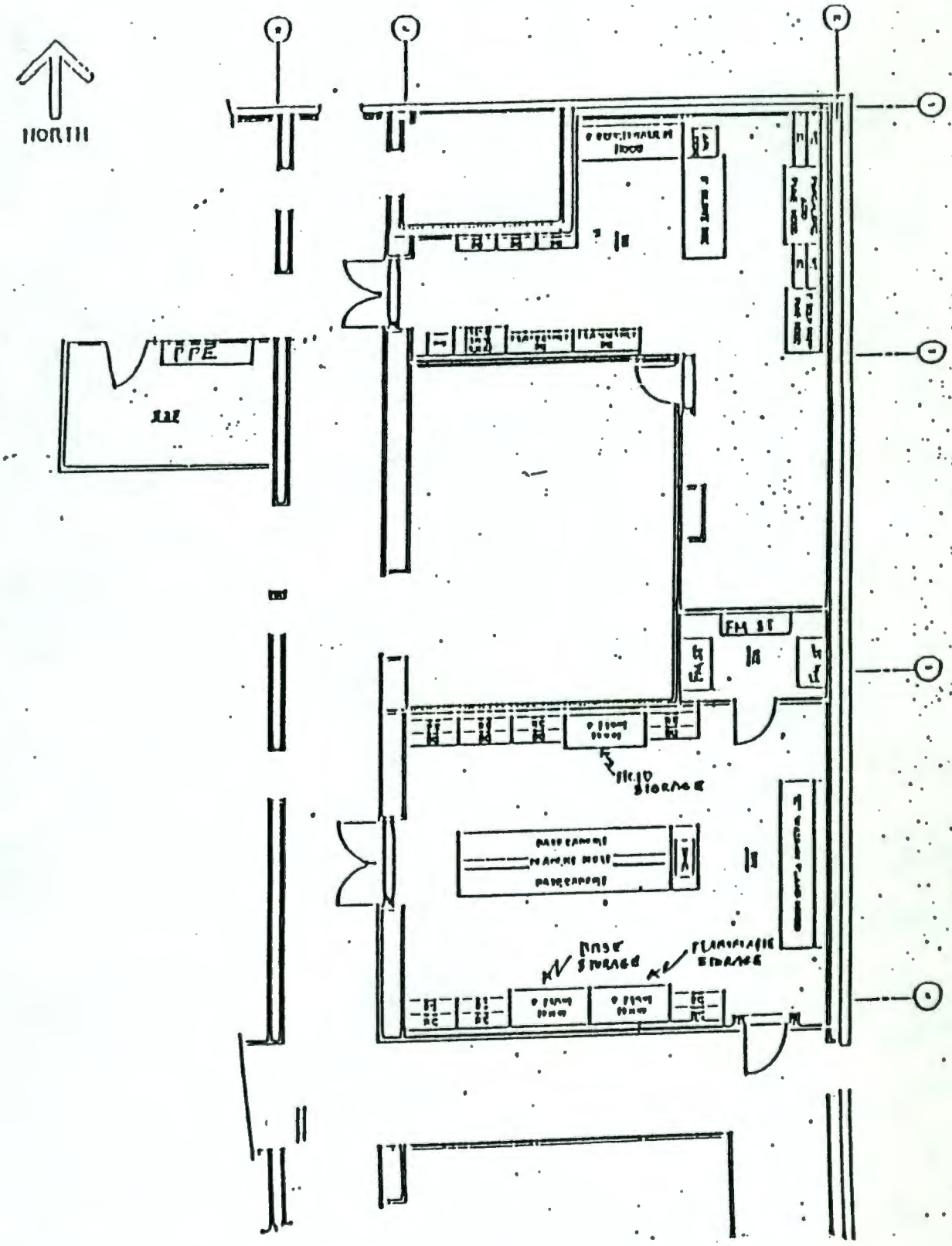
325/3100 HAZARDOUS WASTE TREATMENT UNIT

8801454-11CN
(PHOTO TAKEN 1988)

46°22'01"
119°16'34"

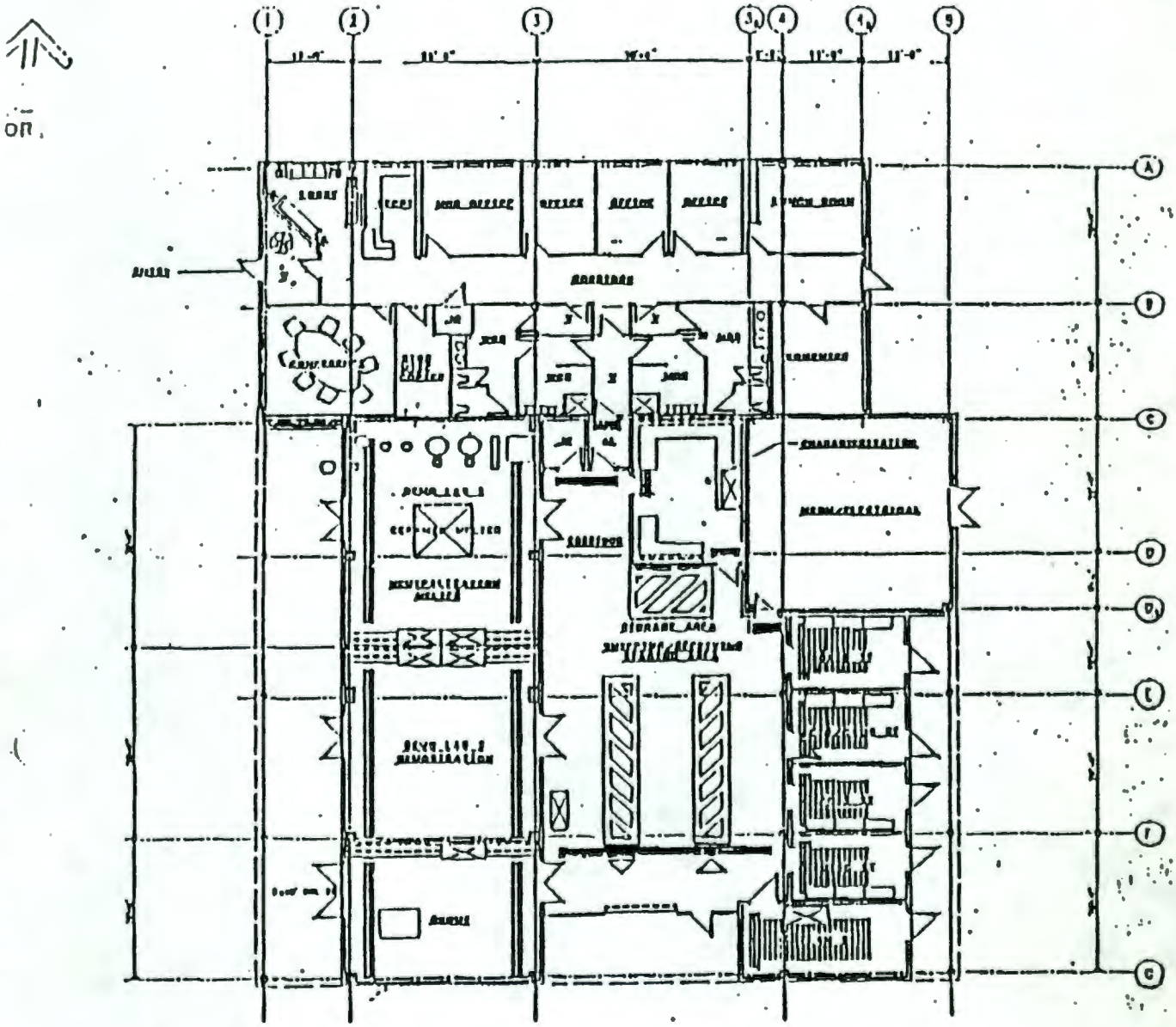
8801454-4CN
(PHOTO TAKEN 1988)

9312939188 3



325 Hazardous Waste Treatment Unit

9 3 1 2 9 9 1 8 8 4



3100 Hazardous Waste Treatment Unit

9 3 1 2 9 9 1 8 8 5

Please print or type in the unshaded areas only
(Ex = no blank 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 0 1 | DAY | YR 7 9 — FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to 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
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	S 0 2	600	G		5				
X-2	T 0 3	20	E		6				
1	S 0 1	110	G		7				
2	T 0 4	500 (max), (30 U avg)	U		8				
3					9				
4					10				

CONTINUE ON REVERSE

9 3 1 2 9 9 1 8 8 6

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.

T04

This permit application covers several treatment technologies/test facilities based upon guidance received from EPA and WDOE in February 1988. This permit application covers treatment of radioactive mixed waste (RMW) and hazardous wastes via the physical and chemical R&D processes listed below. These treatment processes will be performed in three major locations: the 325 Building Shielded Analytical Laboratory, the 324 Building Radiochemical Hot-Cell Complex, and 324 Building Biological Treatment Test Facilities.

These treatment processes are usually small, bench-scale operations. The processes include:

- pH adjustment
- ion exchange for selective removal of contaminants from waste solutions

(continued on 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

CONTINUE ON PAGE

9 3 1 2 9 9 1 8 8 7

III. PROCESSES (continued)

- waste concentration by evaporation
- waste dissolution such as waste retrieval from storage tanks by pH adjustment or fusion
- precipitation/filtration and solvent extraction from solutions, slurries, and sludges
- solids washing for separation of contaminants from sludges
- catalytic destruction methods; for example: electrolytic generation of oxidants such as silver, cerium, and other electrochemically-enhanced processes for decontaminating metals and oxidizing non-metals
- grouting

Continue this page before completing if you have more than 20 wastes to list

ID NUMBER (enter from page 1)

7 8 9 0 0 0 8 9 6 7

DESCRIPTION OF DANGEROUS WASTES (continued)

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))
D001	133,000	P	T04				
D002	included above	P	T04				
D003	included above	P	T04				
D004	included above	P	T04				
D005	included above	P	T04				
D006	included above	P	T04				
D007	included above	P	T04				
D008	included above	P	T04				
D009	included above	P	T04				
D010	included above	P	T04				
D011	included above	P	T04				
D012	included above	P	T04				
D013	included above	P	T04				
D014	included above	P	T04				
D015	included above	P	T04				
D016	included above	P	T04				
D017	included above	P	T04				
D018	included above	P	T04				
D019	included above	P	T04				
D020	included above	P	T04				
D021	included above	P	T04				
D022	included above	P	T04				
D023	included above	P	T04				
D024	included above	P	T04				
D025	included above	P	T04				
D026	included above	P	T04				

(enter "A", "B", "C" or "D" to identify continued pages)

Continue from page 7

Continue this page before completing if you have more than 26 wastes to list

ID NUMBER (enter from page 1)

1 7 8 9 0 0 0 8 9 6 7

DESCRIPTION OF DANGEROUS WASTES (continued)

	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))
	D027	included above	P	T04				
2	D028	included above	P	T04				
3	D029	included above	P	T04				
4	D030	included above	P	T04				
5	D031	included above	P	T04				
6	D032	included above	P	T04				
7	D033	included above	P	T04				
8	D034	included above	P	T04				
9	D035	included above	P	T04				
10	D036	included above	P	T04				
11	D037	included above	P	T04				
12	D038	included above	P	T04				
13	D039	included above	P	T04				
14	D040	included above	P	T04				
15	D041	included above	P	T04				
16	D042	included above	P	T04				
17	D043	included above	P	T04				
18	F001	included above	P	T04				
19	F002	included above	P	T04				
20	F003	included above	P	T04				
21	F004	included above	P	T04				
22	F005	included above	P	T04				
23	K048	included above	P	T04				
24	K049	included above	P	T04				
25	K050	included above	P	T04				
26	K051	included above	P	T04				

9 3 1 2 9 9 1 8 9 0

Continue this page if you have more than 26 wastes to list

D NUMBER (enter from page 1)

1	7	8	9	0	0	0	8	9	6	7

DESCRIPTION OF DANGEROUS WASTES (continued)

	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	K052	included above	P	T04				
2	P001	included above	P	T04				
3	P002	included in above	P	T04				
4	P003	included in above	P	T04				
5	P004	included in above	P	T04				
6	P005	included in above	P	T04				
7	P006	included in above	P	T04				
8	P007	included in above	P	T04				
9	P008	included in above	P	T04				
10	P009	included in above	P	T04				
11	P010	included in above	P	T04				
12	P011	included in above	P	T04				
13	P012	included in above	P	T04				
14	P013	included in above	P	T04				
15	P014	included in above	P	T04				
16	P015	included in above	P	T04				
17	P016	included in above	P	T04				
18	P017	included in above	P	T04				
19	P018	included in above	P	T04				
20	P019	included in above	P	T04				
21	P020	included in above	P	T04				
22	P021	included in above	P	T04				
23	P022	included in above	P	T04				
24	P023	included in above	P	T04				
25	P024	included in above	P	T04				
26	P025	included in above	P	T04				

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

ID NUMBER (enter from page 1)

A 7 8 9 0 0 0 8 9 6 7

. DESCRIPTION OF DANGEROUS WASTES (continued)

N O.	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))
1	P 0 2 6	included in above	P	T 0 4			
2	P 0 2 7	included in above	P	T 0 4			
3	P 0 2 8	included in above	P	T 0 4			
4	P 0 2 9	included in above	P	T 0 4			
5	P 0 3 0	included in above	P	T 0 4			
6	P 0 3 1	included in above	P	T 0 4			
7	P 0 3 2	included in above	P	T 0 4			
8	P 0 3 3	included in above	P	T 0 4			
9	P 0 3 4	included in above	P	T 0 4			
10	P 0 3 5	included in above	P	T 0 4			
11	P 0 3 6	included in above	P	T 0 4			
12	P 0 3 7	included in above	P	T 0 4			
13	P 0 3 8	included in above	P	T 0 4			
14	P 0 3 9	included in above	P	T 0 4			
15	P 0 4 0	included in above	P	T 0 4			
16	P 0 4 1	included in above	P	T 0 4			
17	P 0 4 2	included in above	P	T 0 4			
18	P 0 4 3	included in above	P	T 0 4			
19	P 0 4 4	included in above	P	T 0 4			
20	P 0 4 5	included in above	P	T 0 4			
21	P 0 4 6	included in above	P	T 0 4			
22	P 0 4 7	included in above	P	T 0 4			
23	P 0 4 8	included in above	P	T 0 4			
24	P 0 4 9	included in above	P	T 0 4			
25	P 0 5 0	included in above	P	T 0 4			
26	P 0 5 1	included in above	P	T 0 4			

9 3 1 2 2 9 9 1 8 9 2

(enter "A", "B", "C" or "D" beside the "3" to identify continued pages)

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)

A 7 8 9 0 0 0 8 9 8 7

V. DESCRIPTION OF DANGEROUS WASTES (continued)

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))
1	P052	included in above	P	T04				
2	P053	included in above	P	T04				
3	P054	included in above	P	T04				
4	P055	included in above	P	T04				
5	P056	included in above	P	T04				
6	P057	included in above	P	T04				
7	P058	included in above	P	T04				
8	P059	included in above	P	T04				
9	P060	included in above	P	T04				
10	P061	included in above	P	T04				
11	P062	included in above	P	T04				
12	P063	included in above	P	T04				
13	P064	included in above	P	T04				
14	P065	included in above	P	T04				
15	P066	included in above	P	T04				
16	P067	included in above	P	T04				
17	P068	included in above	P	T04				
18	P069	included in above	P	T04				
19	P070	included in above	P	T04				
20	P071	included in above	P	T04				
21	P072	included in above	P	T04				
22	P073	included in above	P	T04				
23	P074	included in above	P	T04				
24	P075	included in above	P	T04				
25	P076	included in above	P	T04				
26	P077	included in above	P	T04				

(enter "A", "B", "C", etc. behind the "3" to identify additional pages)

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(Continued from page 2)

E. (Continue on this page before completing if you have more than 20 wastes to list)

ID NUMBER (enter from page 1): A 7 8 9 0 0 0 8 9 6 7

F. DESCRIPTION OF DANGEROUS WASTES (continued)

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))
1	P 0 7 8	included in above	P	T 0 4				
2	P 0 7 9	included in above	P	T 0 4				
3	P 0 8 0	included in above	P	T 0 4				
4	P 0 8 1	included in above	P	T 0 4				
5	P 0 8 2	included in above	P	T 0 4				
6	P 0 8 3	included in above	P	T 0 4				
7	P 0 8 4	included in above	P	T 0 4				
8	P 0 8 5	included in above	P	T 0 4				
9	P 0 8 6	included in above	P	T 0 4				
10	P 0 8 7	included in above	P	T 0 4				
11	P 0 8 8	included in above	P	T 0 4				
12	P 0 8 9	included in above	P	T 0 4				
13	P 0 9 0	included in above	P	T 0 4				
14	P 0 9 1	included in above	P	T 0 4				
15	P 0 9 2	included in above	P	T 0 4				
16	P 0 9 3	included in above	P	T 0 4				
17	P 0 9 4	included in above	P	T 0 4				
18	P 0 9 5	included in above	P	T 0 4				
19	P 0 9 6	included in above	P	T 0 4				
20	P 0 9 7	included in above	P	T 0 4				
21	P 0 9 8	included in above	P	T 0 4				
22	P 0 9 9	included in above	P	T 0 4				
23	P 1 0 0	included in above	P	T 0 4				
24	P 1 0 1	included in above	P	T 0 4				
25	P 1 0 2	included in above	P	T 0 4				
26	P 1 0 3	included in above	P	T 0 4				

9 3 1 2 9 9 1 8 9 4

Continued from page 7

Continue on this page before completing if you have more than 26 wastes to list

ID NUMBER (enter from page 1)

1	7	8	9	0	0	0	8	9	6	7

DESCRIPTION OF DANGEROUS WASTES (continued)

	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))
	P 1 0 4	included in above	P	T 0 4				
	P 1 0 5	included in above	P	T 0 4				
	P 1 0 6	included in above	P	T 0 4				
	P 1 0 7	included in above	P	T 0 4				
	P 1 0 8	included in above	P	T 0 4				
	P 1 0 9	included in above	P	T 0 4				
	P 1 1 0	included in above	P	T 0 4				
	P 1 1 1	included in above	P	T 0 4				
	P 1 1 2	included in above	P	T 0 4				
	P 1 1 3	included in above	P	T 0 4				
	P 1 1 4	included in above	P	T 0 4				
	P 1 1 5	included in above	P	T 0 4				
	P 1 1 6	included in above	P	T 0 4				
	P 1 1 7	included in above	P	T 0 4				
	P 1 1 8	included in above	P	T 0 4				
	P 1 1 9	included in above	P	T 0 4				
	P 1 2 0	included in above	P	T 0 4				
	P 1 2 1	included in above	P	T 0 4				
	P 1 2 2	included in above	P	T 0 4				
	P 1 2 3	included in above	P	T 0 4				
	U 0 0 1	included in above	P	T 0 4				
	U 0 0 2	included in above	P	T 0 4				
	U 0 0 3	included in above	P	T 0 4				
	U 0 0 4	included in above	P	T 0 4				
	U 0 0 5	included in above	P	T 0 4				
	U 0 0 6	included in above	P	T 0 4				

9 3 1 2 9 9 1 8 9 5

Continued from page 7

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

ID NUMBER (enter from page 1)

A 7 8 9 0 0 0 8 9 6 7

V. DESCRIPTION OF DANGEROUS WASTES (continued)

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))
1	U 0 0 7	included in above	P	T 0 4				
2	U 0 0 8	included in above	P	T 0 4				
3	U 0 0 9	included in above	P	T 0 4				
4	U 0 1 0	included in above	P	T 0 4				
5	U 0 1 1	included in above	P	T 0 4				
6	U 0 1 2	included in above	P	T 0 4				
7	U 0 1 3	included in above	P	T 0 4				
8	U 0 1 4	included in above	P	T 0 4				
9	U 0 1 5	included in above	P	T 0 4				
10	U 0 1 6	included in above	P	T 0 4				
11	U 0 1 7	included in above	P	T 0 4				
12	U 0 1 8	included in above	P	T 0 4				
13	U 0 1 9	included in above	P	T 0 4				
14	U 0 2 0	included in above	P	T 0 4				
15	U 0 2 1	included in above	P	T 0 4				
16	U 0 2 2	included in above	P	T 0 4				
17	U 0 2 3	included in above	P	T 0 4				
18	U 0 2 4	included in above	P	T 0 4				
19	U 0 2 5	included in above	P	T 0 4				
20	U 0 2 6	included in above	P	T 0 4				
21	U 0 2 7	included in above	P	T 0 4				
22	U 0 2 8	included in above	P	T 0 4				
23	U 0 2 9	included in above	P	T 0 4				
24	U 0 3 0	included in above	P	T 0 4				
25	U 0 3 1	included in above	P	T 0 4				
26	U 0 3 2	included in above	P	T 0 4				

9 6 8 1 6 9 2 1 3 6

Continued from page 3

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

ID NUMBER (enter from page 1): A 7 8 9 0 0 0 8 9 6 7

V. DESCRIPTION OF DANGEROUS WASTES (continued)

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 3 3	included in above	P	T 0 1				
2	U 0 3 4	included in above	P	T 0 4				
3	U 0 3 5	included in above	P	T 0 4				
4	U 0 3 6	included in above	P	T 0 4				
5	U 0 3 7	included in above	P	T 0 4				
6	U 0 3 8	included in above	P	T 0 4				
7	U 0 3 9	included in above	P	T 0 4				
8	U 0 4 0	included in above	P	T 0 4				
9	U 0 4 1	included in above	P	T 0 4				
10	U 0 4 2	included in above	P	T 0 4				
11	U 0 4 3	included in above	P	T 0 4				
12	U 0 4 4	included in above	P	T 0 4				
13	U 0 4 5	included in above	P	T 0 4				
14	U 0 4 6	included in above	P	T 0 4				
15	U 0 4 7	included in above	P	T 0 4				
16	U 0 4 8	included in above	P	T 0 4				
17	U 0 4 9	included in above	P	T 0 4				
18	U 0 5 0	included in above	P	T 0 4				
19	U 0 5 1	included in above	P	T 0 4				
20	U 0 5 2	included in above	P	T 0 4				
21	U 0 5 3	included in above	P	T 0 4				
22	U 0 5 4	included in above	P	T 0 4				
23	U 0 5 5	included in above	P	T 0 4				
24	U 0 5 6	included in above	P	T 0 4				
25	U 0 5 7	included in above	P	T 0 4				
26	U 0 5 8	included in above	P	T 0 4				

9 3 1 2 9 9 1 8 9 7

(enter "4" "B" "C" etc. behind the "3" to identify additional pages)

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)

A 7 8 9 0 0 0 8 9 6 7

V. DESCRIPTION OF DANGEROUS WASTES (continued)

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))
1	U 0 5 9	included in above	P	T 0 4				
2	U 0 6 0	included in above	P	T 0 4				
3	U 0 6 1	included in above	P	T 0 4				
4	U 0 6 2	included in above	P	T 0 4				
5	U 0 6 3	included in above	P	T 0 4				
6	U 0 6 4	included in above	P	T 0 4				
7	U 0 6 5	included in above	P	T 0 4				
8	U 0 6 6	included in above	P	T 0 4				
9	U 0 6 7	included in above	P	T 0 4				
10	U 0 6 8	included in above	P	T 0 4				
11	U 0 6 9	included in above	P	T 0 4				
12	U 0 7 0	included in above	P	T 0 4				
13	U 0 7 1	included in above	P	T 0 4				
14	U 0 7 2	included in above	P	T 0 4				
15	U 0 7 3	included in above	P	T 0 4				
16	U 0 7 4	included in above	P	T 0 4				
17	U 0 7 5	included in above	P	T 0 4				
18	U 0 7 6	included in above	P	T 0 4				
19	U 0 7 7	included in above	P	T 0 4				
20	U 0 7 8	included in above	P	T 0 4				
21	U 0 7 9	included in above	P	T 0 4				
22	U 0 8 0	included in above	P	T 0 4				
23	U 0 8 1	included in above	P	T 0 4				
24	U 0 8 2	included in above	P	T 0 4				
25	U 0 8 3	included in above	P	T 0 4				
26	U 0 8 4	included in above	P	T 0 4				

9 3 1 2 9 9 1 8 9 8

Next from page 2

Continue this page before completing if you have more than 26 wastes to list

ID NUMBER (enter from page 1)

A 7 8 9 0 0 0 8 9 6 7

7. DESCRIPTION OF DANGEROUS WASTES (continued)

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.)
1	U 0 8 5	included in above	P	T 0 4				
2	U 0 8 6	included in above	P	T 0 4				
3	U 0 8 7	included in above	P	T 0 4				
4	U 0 8 8	included in above	P	T 0 4				
5	U 0 8 9	included in above	P	T 0 4				
6	U 0 9 0	included in above	P	T 0 4				
7	U 0 9 1	included in above	P	T 0 4				
8	U 0 9 2	included in above	P	T 0 4				
9	U 0 9 3	included in above	P	T 0 4				
10	U 0 9 4	included in above	P	T 0 4				
	U 0 9 5	included in above	P	T 0 4				
12	U 0 9 6	included in above	P	T 0 4				
13	U 0 9 7	included in above	P	T 0 4				
14	U 0 9 8	included in above	P	T 0 4				
15	U 0 9 9	included in above	P	T 0 4				
16	U 1 0 0	included in above	P	T 0 4				
17	U 1 0 1	included in above	P	T 0 4				
18	U 1 0 2	included in above	P	T 0 4				
19	U 1 0 3	included in above	P	T 0 4				
20	U 1 0 4	included in above	P	T 0 4				
21	U 1 0 5	included ina above	P	T 0 4				
22	U 1 0 6	included in above	P	T 0 4				
23	U 1 0 7	included in above	P	T 0 4				
24	U 1 0 8	included in above	P	T 0 4				
25	U 1 0 9	included in above	P	T 0 4				
26	U 1 1 0	included in above	P	T 0 4				

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Continue on page 2

Continue this page before completing if you have more than 20 wastes to list

ID NUMBER (enter from page 1)

7 8 9 0 0 0 8 9 6 7

DESCRIPTION OF DANGEROUS WASTES (continued)

	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))
	U 1 1 1	included in above	P	T 0 4				
	U 1 1 2	included in above	P	T 0 4				
	U 1 1 3	included in above	P	T 0 4				
	U 1 1 4	included in above	P	T 0 4				
	U 1 1 5	included in above	P	T 0 4				
	U 1 1 6	included in above	P	T 0 4				
	U 1 1 7	included in above	P	T 0 4				
	U 1 1 8	included in above	P	T 0 4				
	U 1 1 9	included in above	P	T 0 4				
	U 1 2 0	included in above	P	T 0 4				
	U 1 2 1	included in above	P	T 0 4				
2	U 1 2 2	included in above	P	T 0 4				
2	U 1 2 3	included in above	P	T 0 4				
4	U 1 2 4	included in above	P	T 0 4				
5	U 1 2 5	included in above	P	T 0 4				
6	U 1 2 6	included in above	P	T 0 4				
7	U 1 2 7	included in above	P	T 0 4				
8	U 1 2 8	included in above	P	T 0 4				
9	U 1 2 9	included in above	P	T 0 4				
0	U 1 3 0	included in above	P	T 0 4				
1	U 1 3 1	included in above	P	T 0 4				
2	U 1 3 2	included in above	P	T 0 4				
3	U 1 3 3	included in above	P	T 0 4				
4	U 1 3 4	included in above	P	T 0 4				
5	U 1 3 5	included in above	P	T 0 4				
6	U 1 3 6	included in above	P	T 0 4				

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Continue on this page before completing if you have more than 26 wastes to list

ID NUMBER (enter from page 1)

A 7 8 9 0 0 0 8 9 6 7

DESCRIPTION OF DANGEROUS WASTES (continued)

	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))
1	U137	included in above	P	T04				
2	U138	included in above	P	T04				
3	U139	included in above	P	T04				
4	U140	included in above	P	T04				
5	U141	included in above	P	T04				
6	U142	included in above	P	T04				
7	U143	included in above	P	T04				
8	U144	included in above	P	T04				
9	U145	included in above	P	T04				
10	U146	included in above	P	T04				
11	U147	included in above	P	T04				
12	U148	included in above	P	T04				
13	U149	included in above	P	T04				
14	U150	included in above	P	T04				
15	U151	included in above	P	T04				
16	U152	included in above	P	T04				
17	U153	included in above	P	T04				
18	U154	included in above	P	T04				
19	U155	included in above	P	T04				
20	U156	include in above	P	T04				
21	U157	included in above	P	T04				
22	U158	included in above	P	T04				
23	U159	included in above	P	T04				
24	U160	included in above	P	T04				
	U161	included in above	P	T04				
25	U162	included in above	P	T04				

931296190 1

Continued from page 2

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

ID NUMBER (enter from page 1)

7	8	9	0	0	0	8	9	6	7

D. DESCRIPTION OF DANGEROUS WASTES (continued)

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))
1	U163	included in above	P	T04				
2	U164	included in above	P	T04				
3	U165	included in above	P	T04				
4	U166	included in above	P	T04				
5	U167	included in above	P	T04				
6	U168	included in above	P	T04				
7	U169	included in above	P	T04				
8	U170	included in above	P	T04				
9	U171	included in above	P	T04				
10	U172	included in above	P	T04				
11	U173	included in above	P	T04				
12	U174	included in above	P	T04				
13	U175	included in above	P	T04				
14	U176	included in above	P	T04				
15	U177	included in above	P	T04				
16	U178	included in above	P	T04				
17	U179	included in above	P	T04				
18	U180	included in above	P	T04				
19	U181	included in above	P	T04				
20	U182	included in above	P	T04				
21	U183	included in above	P	T04				
22	U184	included in above	P	T04				
23	U185	included in above	P	T04				
24	U186	included in above	P	T04				
25	U187	included in above	P	T04				
26	U188	included in above	P	T04				

931291902

...ued from page 2

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

ID NUMBER (enter from page 1)

A 7 8 9 0 0 0 8 9 6 7

V. DESCRIPTION OF DANGEROUS WASTES (continued)

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 1 8 9	included in above	P	T 0 4				
2	U 1 9 0	included in above	P	T 0 4				
3	U 1 9 1	included in above	P	T 0 4				
4	U 1 9 2	included in above	P	T 0 4				
5	U 1 9 3	included in above	P	T 0 4				
6	U 1 9 4	included in above	P	T 0 4				
7	U 1 9 5	included in above	P	T 0 4				
8	U 1 9 6	included in above	P	T 0 4				
9	U 1 9 7	included in above	P	T 0 4				
10	U 1 9 8	included in above	P	T 0 4				
	U 1 9 9	included in above	P	T 0 4				
12	U 2 0 0	included in above	P	T 0 4				
13	U 2 0 1	included in above	P	T 0 4				
14	U 2 0 2	included in above	P	T 0 4				
15	U 2 0 3	included in above	P	T 0 4				
16	U 2 0 4	included in above	P	T 0 4				
17	U 2 0 5	included in above	P	T 0 4				
18	U 2 0 6	included in above	P	T 0 4				
19	U 2 0 7	included in above	P	T 0 4				
20	U 2 0 8	included in above	P	T 0 4				
21	U 2 0 9	included in above	P	T 0 4				
22	U 2 1 0	included in above	P	T 0 4				
23	U 2 1 1	included in above	P	T 0 4				
24	U 2 1 2	included in above	P	T 0 4				
25	U 2 1 3	included in above	P	T 0 4				
26	U 2 1 4	included in above	P	T 0 4				

9 3 1 2 9 9 1 9 0 3

(Continued from page 1)

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

ID NUMBER (enter from page 1): A 7 8 9 0 0 0 8 9 6 7

DESCRIPTION OF DANGEROUS WASTES (continued)

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 2 1 5	included in above	P	T 0 4	
2	U 2 1 6	included in above	P	T 0 4	
3	U 2 1 7	included in above	P	T 0 4	
4	U 2 1 8	included in above	P	T 0 4	
5	U 2 1 9	included in above	P	T 0 4	
6	U 2 2 0	included in above	P	T 0 4	
7	U 2 2 1	included in above	P	T 0 4	
8	U 2 2 2	included in above	P	T 0 4	
9	U 2 2 3	included in above	P	T 0 4	
10	U 2 2 4	included in above	P	T 0 4	
11	U 2 2 5	included in above	P	T 0 4	
12	U 2 2 6	included in above	P	T 0 4	
13	U 2 2 7	included in above	P	T 0 4	
14	U 2 2 8	included in above	P	T 0 4	
15	U 2 2 9	included in above	P	T 0 4	
16	U 2 3 0	included in above	P	T 0 4	
17	U 2 3 1	included in above	P	T 0 4	
18	U 2 3 2	included in above	P	T 0 4	
19	U 2 3 3	included in above	P	T 0 4	
20	U 2 3 4	included in above	P	T 0 4	
21	U 2 3 5	included in above	P	T 0 4	
22	U 2 3 6	included in above	P	T 0 4	
23	U 2 3 7	included in above	P	T 0 4	
24	U 2 3 8	included in above	P	T 0 4	
25	U 2 3 9	included in above	P	T 0 4	
26	U 2 4 0	included in above	P	T 0 4	

9 3 1 2 9 9 1 9 0 4

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)

4 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)				2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	U 2 4 1	included in above	P	T 0 4				
2	U 2 4 2	included in above	P	T 0 4				
3	U 2 4 3	included in above	P	T 0 4				
4	U 2 4 4	included in above	P	T 0 4				
5	U 2 4 5	included in above	P	T 0 4				
6	U 2 4 6	included in above	P	T 0 4				
7	U 2 4 7	included in above	P	T 0 4				
8	U 2 4 8	included in above	P	T 0 4				
9	U 2 4 9	included in above	P	T 0 4				
10	U 3 2 8	included in above	P	T 0 4				
11	U 3 5 3	included in above	P	T 0 4				
12	U 3 5 9	included in above	P	T 0 4				
13	W C 0 1	included in above	P	T 0 4				
14	W C 0 2	included in above	P	T 0 4				
15	W P 0 1	included in above	P	T 0 4				
16	W P 0 2	included in above	P	T 0 4				
17	W P 0 3	included in above	P	T 0 4				
18	W T 0 1	included in above	P	T 0 4				
19	W T 0 2	included in above	P	T 0 4				
20	D 0 0 1	880	P	S 0 1				
21	D 0 0 2	included in above	P	S 0 1				
22	D 0 0 3	included in above	P	S 0 1				
23	D 0 0 4	included in above	P	S 0 1				
24	D 0 0 5	included in above	P	S 0 1				
25	D 0 0 6	included in above	P	S 0 1				
26	D 0 0 7	included in above	P	S 0 1				

9 3 1 2 9 2 1 9 0 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)

1 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)				2. PROCESS DESCRIPTION (If a code is not entered in D(1))
1	D008	included in above	P	S01				
2	D009	included in above	P	S01				
3	D010	included in above	P	S01				
4	D011	included in above	P	S01				
5	D018	included in above	P	S01				
6	D019	included in above	P	S01				
7	D022	included in above	P	S01				
8	D028	included in above	P	S01				
9	D029	included in above	P	S01				
10	D030	included in above	P	S01				
11	D033	included in above	P	S01				
12	D034	included in above	P	S01				
13	D035	included in above	P	S01				
14	D036	included in above	P	S01				
15	D038	included in above	P	S01				
16	D039	included in above	P	S01				
17	D040	included in above	P	S01				
18	D041	included in above	P	S01				
19	D043	included in above	P	S01				
20	WT01	included in above	P	S01				
21	WT02	included in above	P	S01				
22	WC01	included in above	P	S01				
23	WC02	included in above	P	S01				
24	WP01	included in above	P	S01				
25	WP02	included in above	P	S01				
26	F003	included in above	P	S01				

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E 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	F005	included in above	P	S01	
2	D031	included in above	P	S01	
3	F002	included in above	P	S01	
4					
5					
6					
7					
8					
9					
10					
11					
12					
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25					
26					

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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 RMW and hazardous waste to be handled with physical/chemical technologies includes listed wastes, wastes from nonspecific sources, characteristic wastes, and state-only wastes. Petroleum refining wastes are also included.

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 the 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
John D. Wagoner, Manager US Department of Energy Field Office, Richland	John D. Wagoner	8/13/91

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

9312916908

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 D. Wagoner, Manager
US Department of Energy
Field Office, Richland

8/13/91
Date

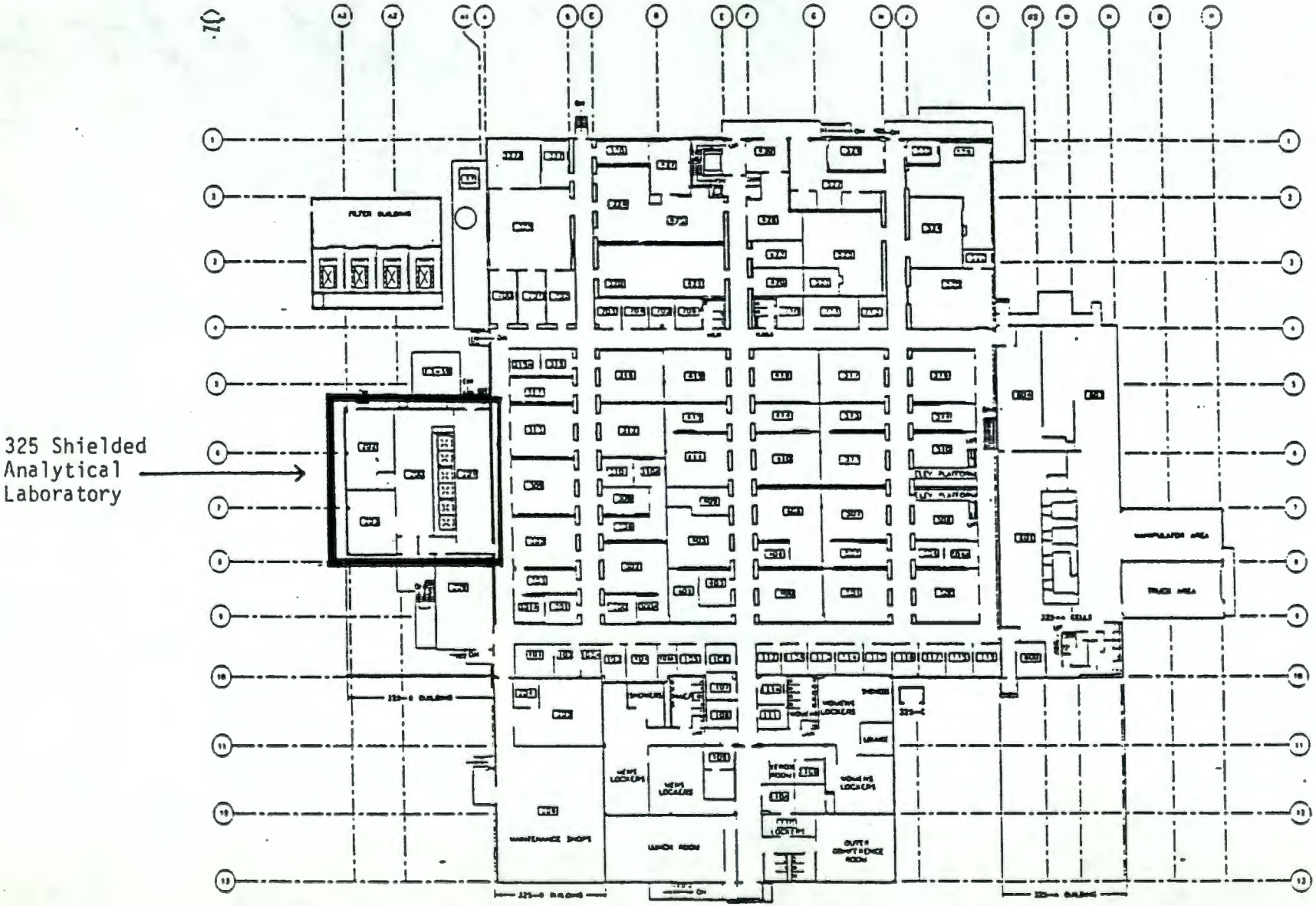
William R. Wiley, Director
Pacific Northwest Laboratory

8-13-91
Date

Continued from page 4

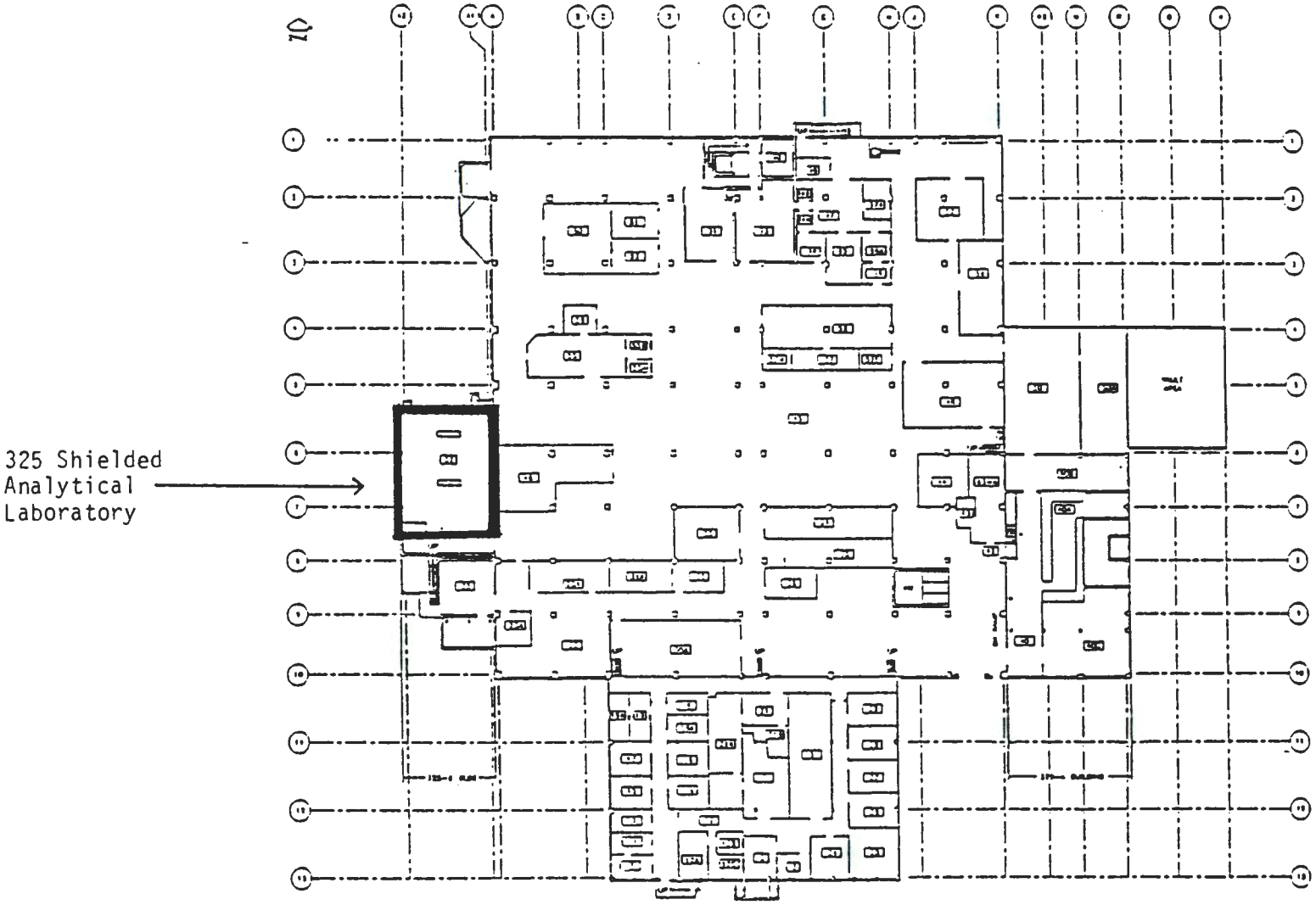
V. FACILITY DRAWING (see page 4)

Drawings of 325 Building Shielded Analytical Laboratory, 324 Building Radiochemical Hot Cell Complex, and the 324 Building Biological Treatment Test Facilities follow.



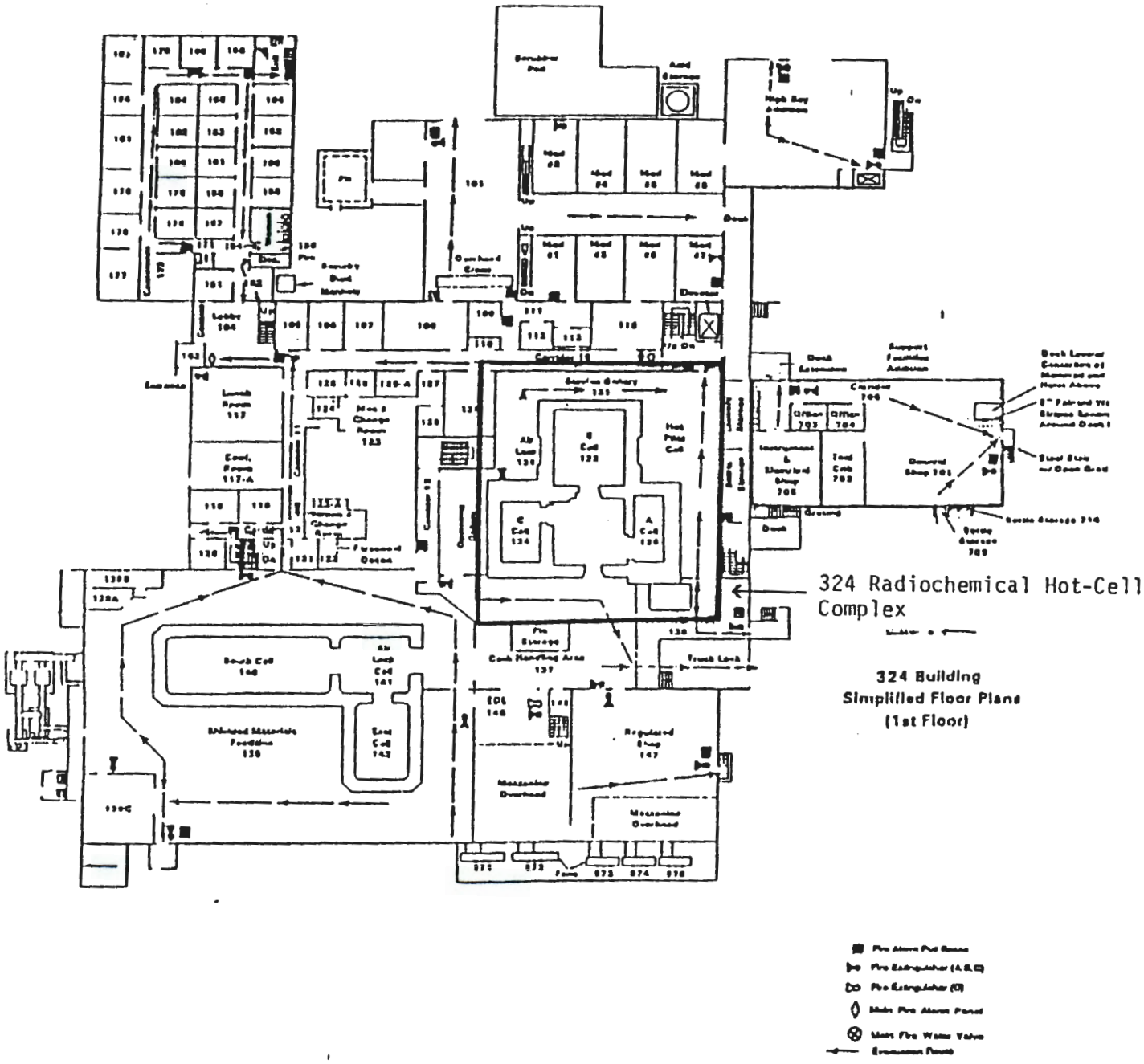
325 Building First Floor

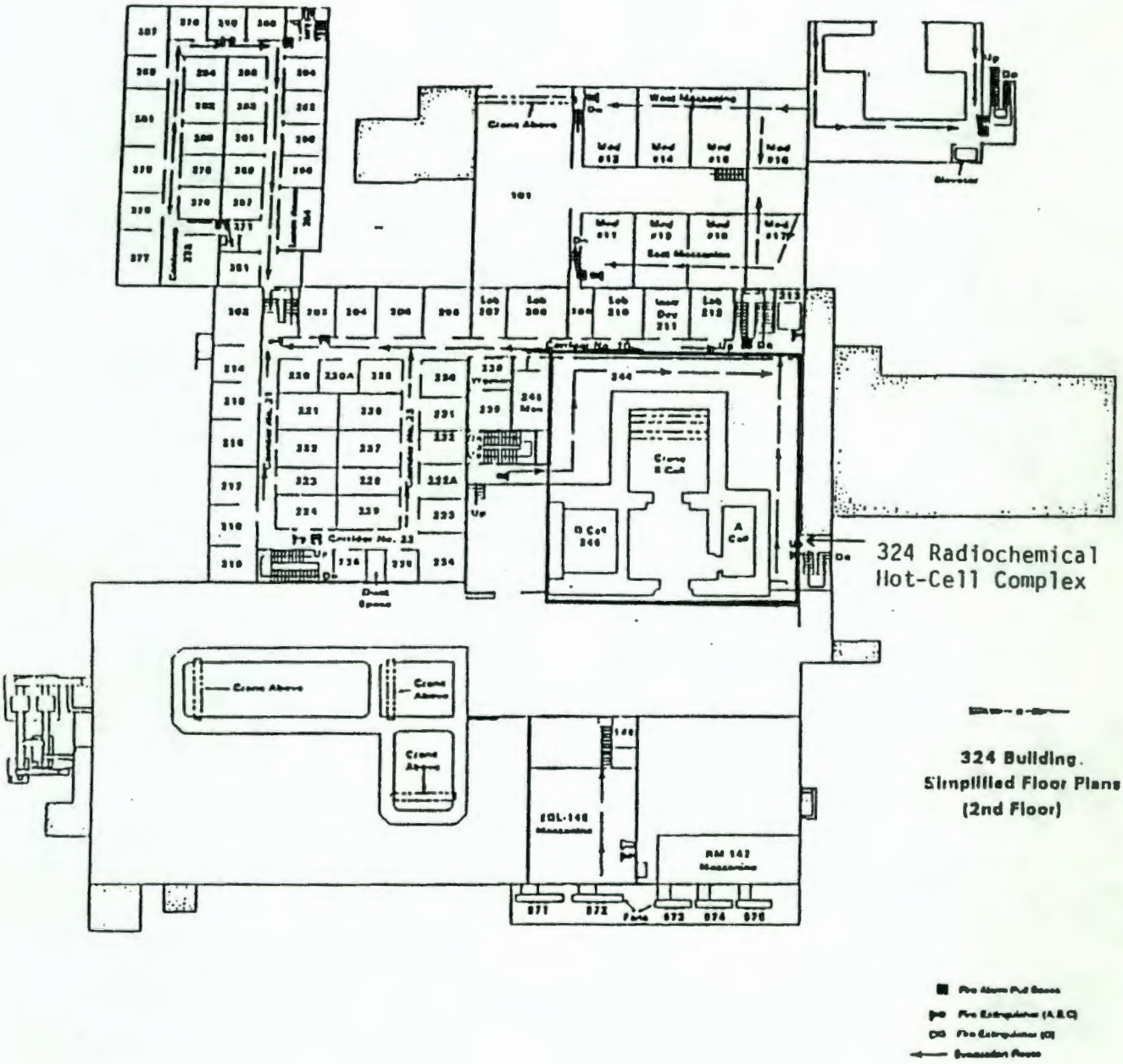
The Shielded Analytical Laboratory includes Rooms 200, 201, 202, and 203 of the first floor of the 325 Building.



325 Building Basement

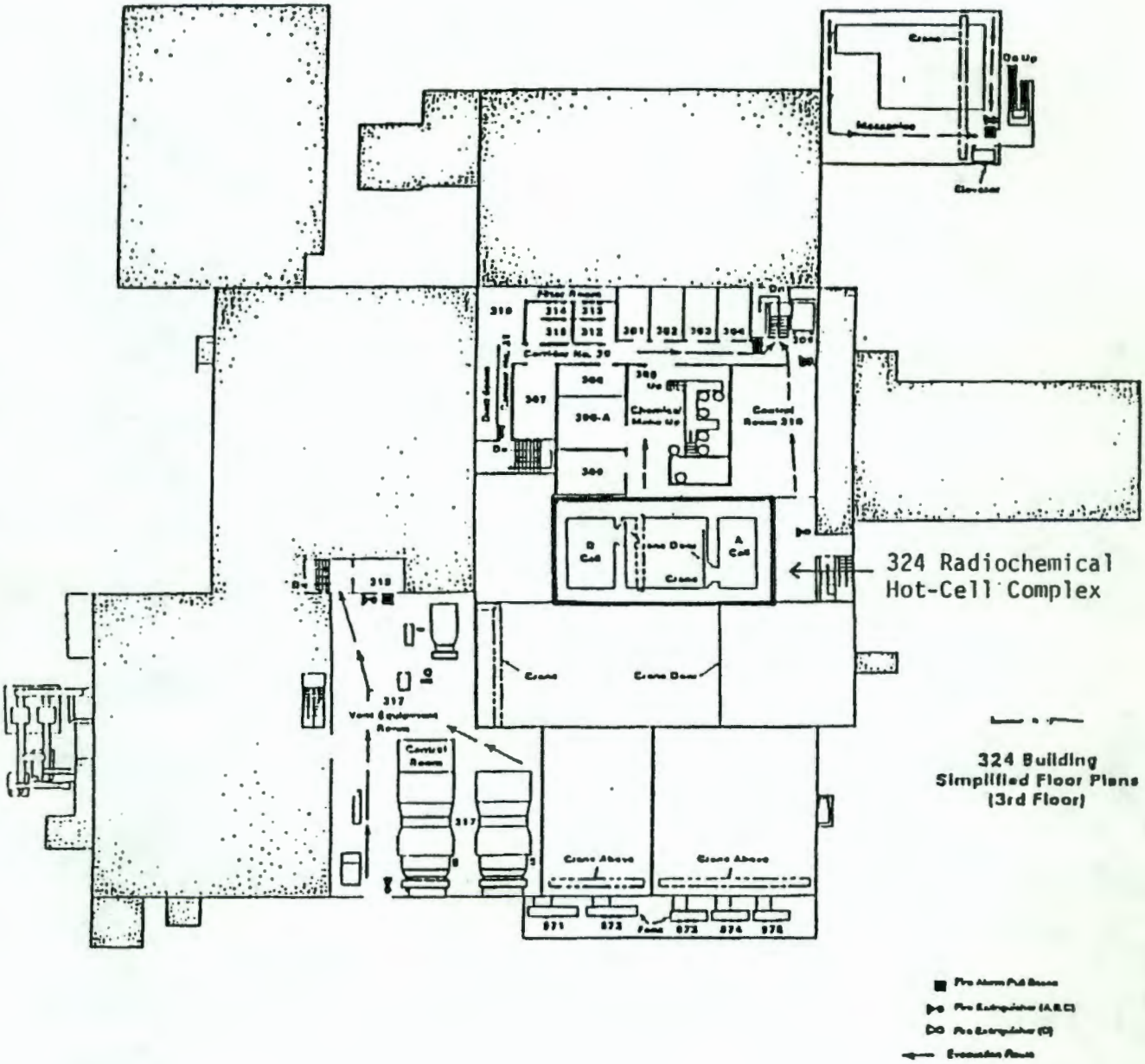
The 325 Building Basement, Room 32 contains a tank and portions of plumbing connected to the SAL hot cells on the first floor.


324 Radiochemical Hot-Cell Complex
324 Building
Simplified Floor Plans
(1st Floor)



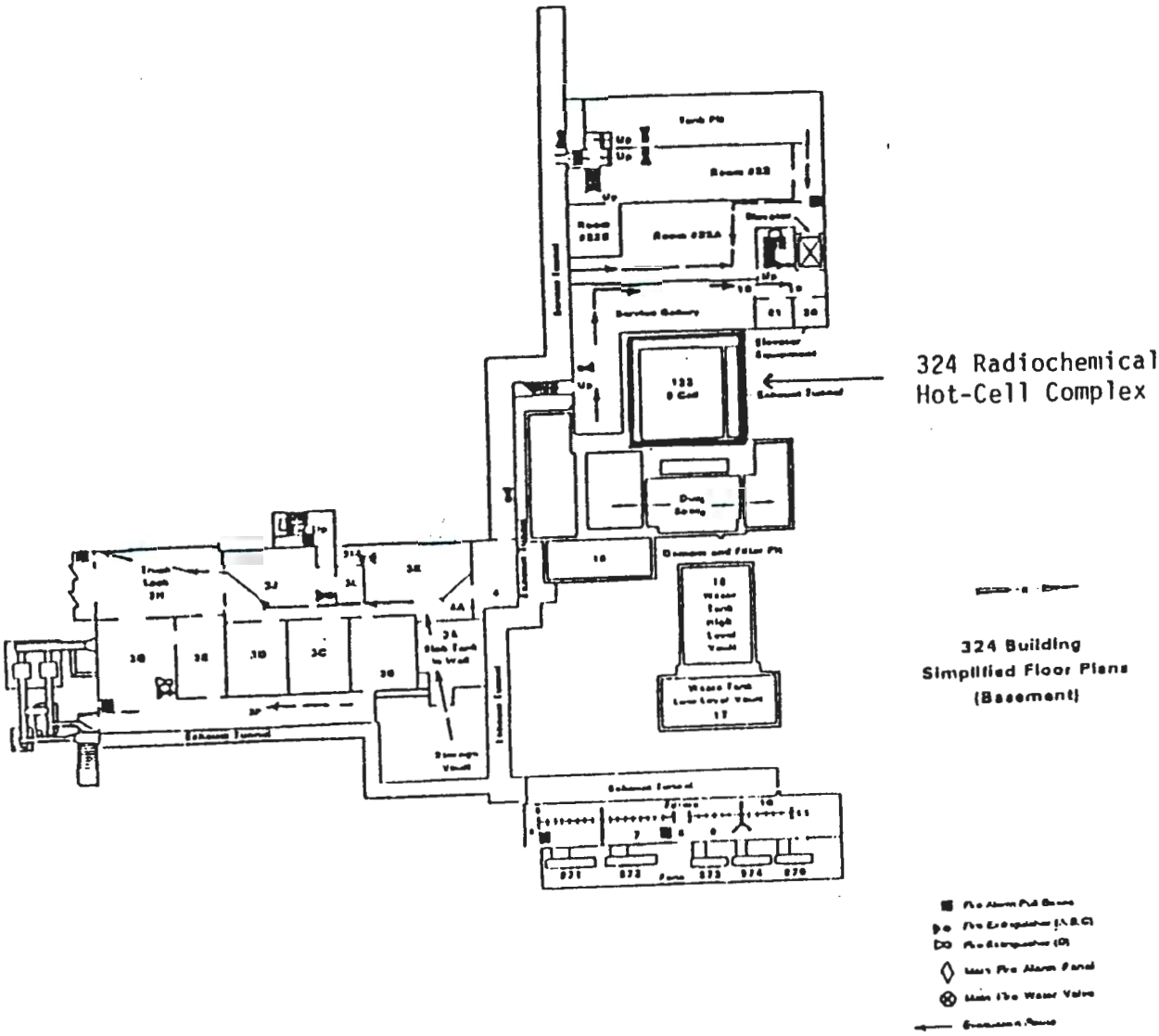
324 Building.
Simplified Floor Plans
(2nd Floor)

9 3 1 2 9 9 1 9 1 4

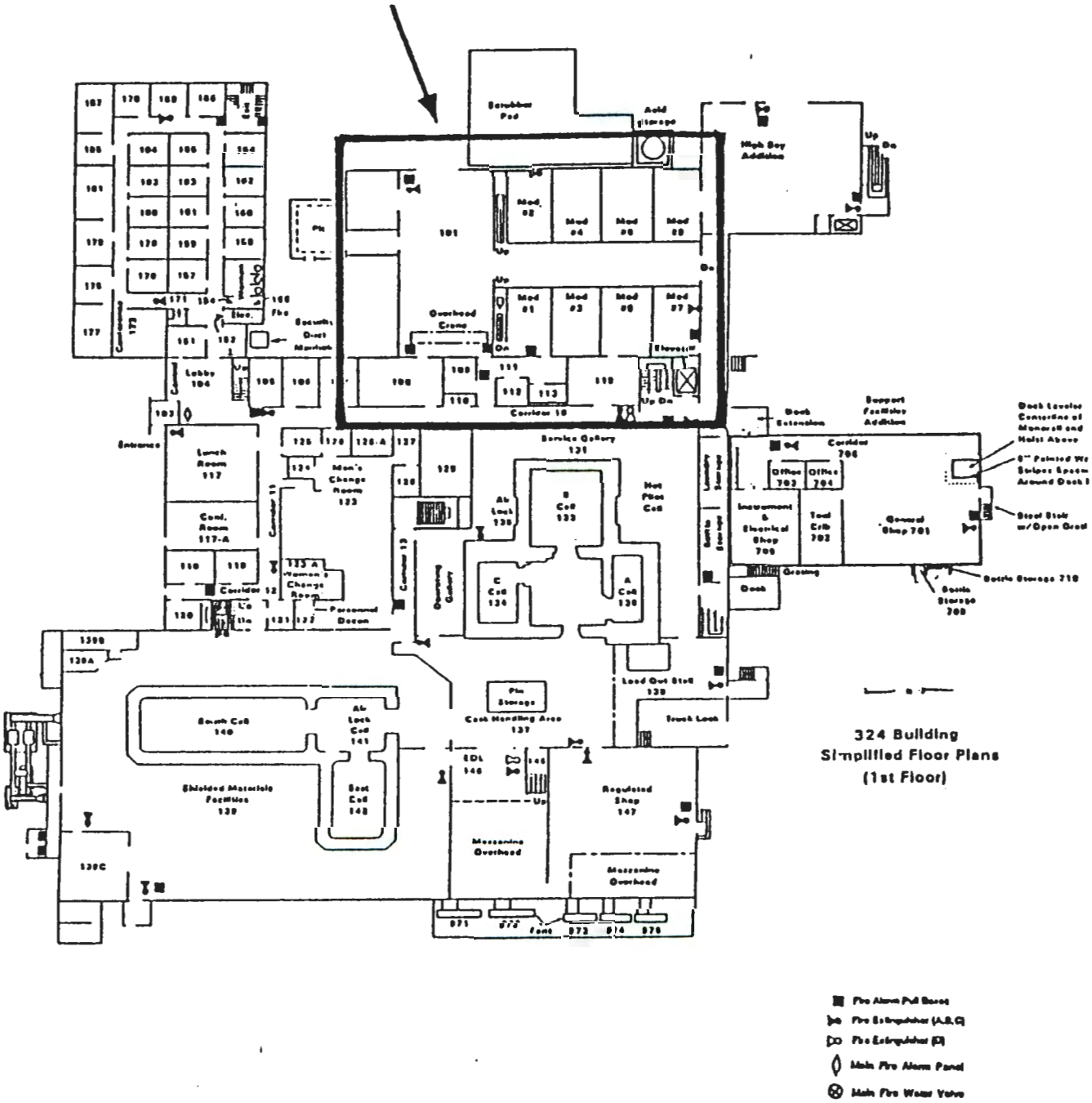


324 Building
Simplified Floor Plans
(3rd Floor)

9 3 1 2 9 9 1 9 1 5

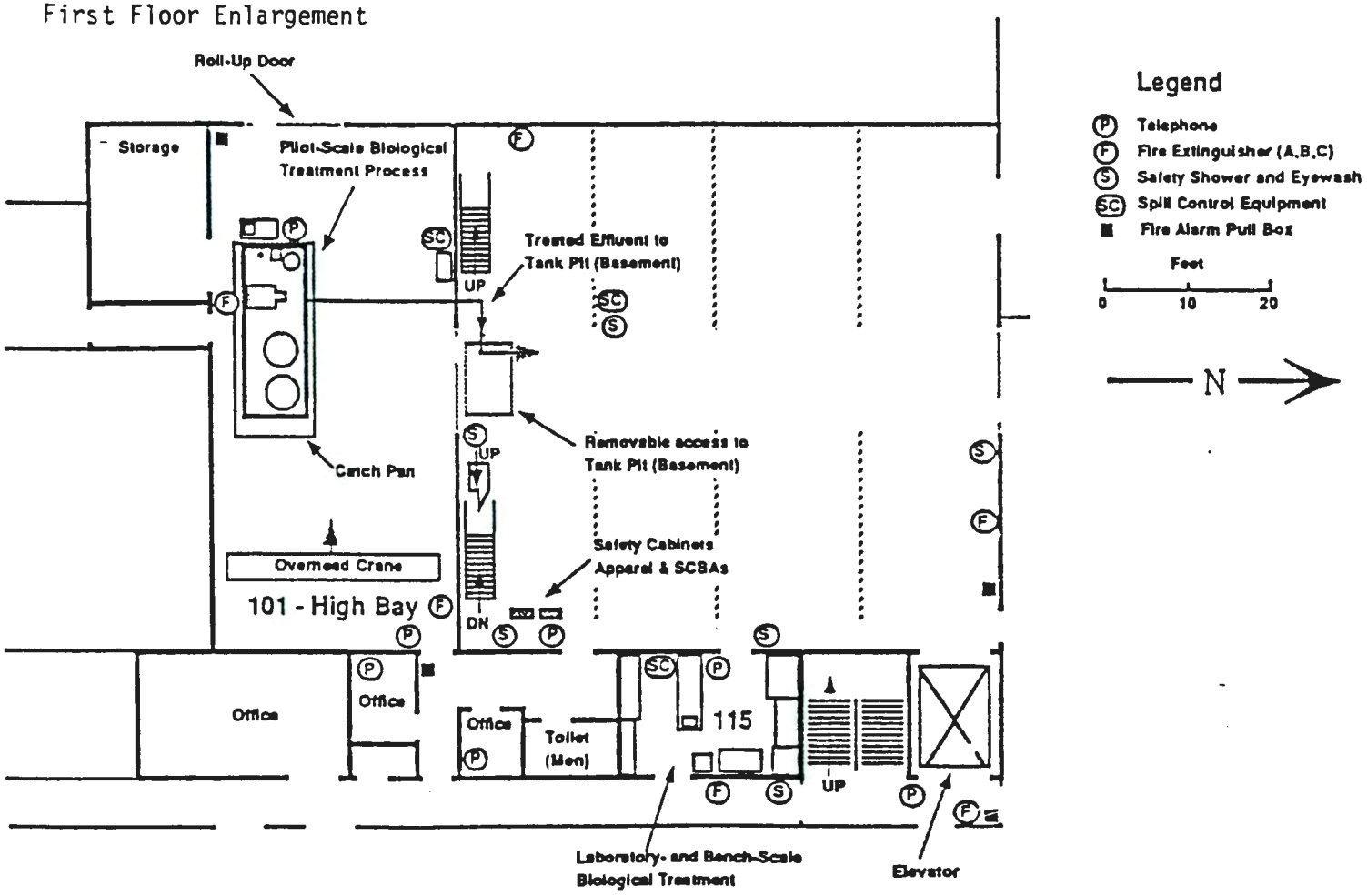

324 Radiochemical
Hot-Cell Complex
324 Building
Simplified Floor Plans
(Basement)

324 Building - Biological Treatment Test Facilities

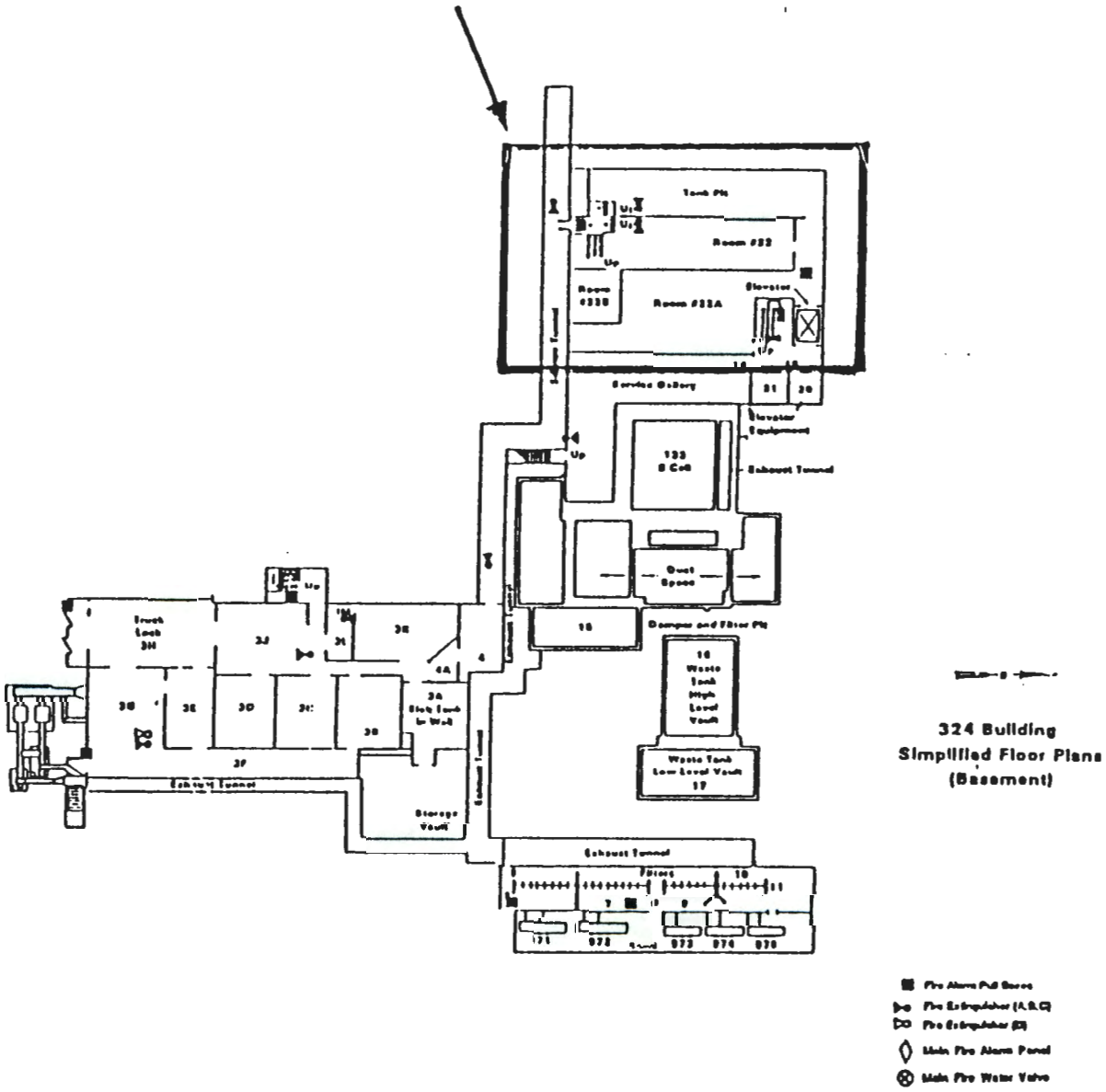


324 Building Biological Treatment Test Facilities
First Floor Plan, Northwest Segment of Building

First Floor Enlargement

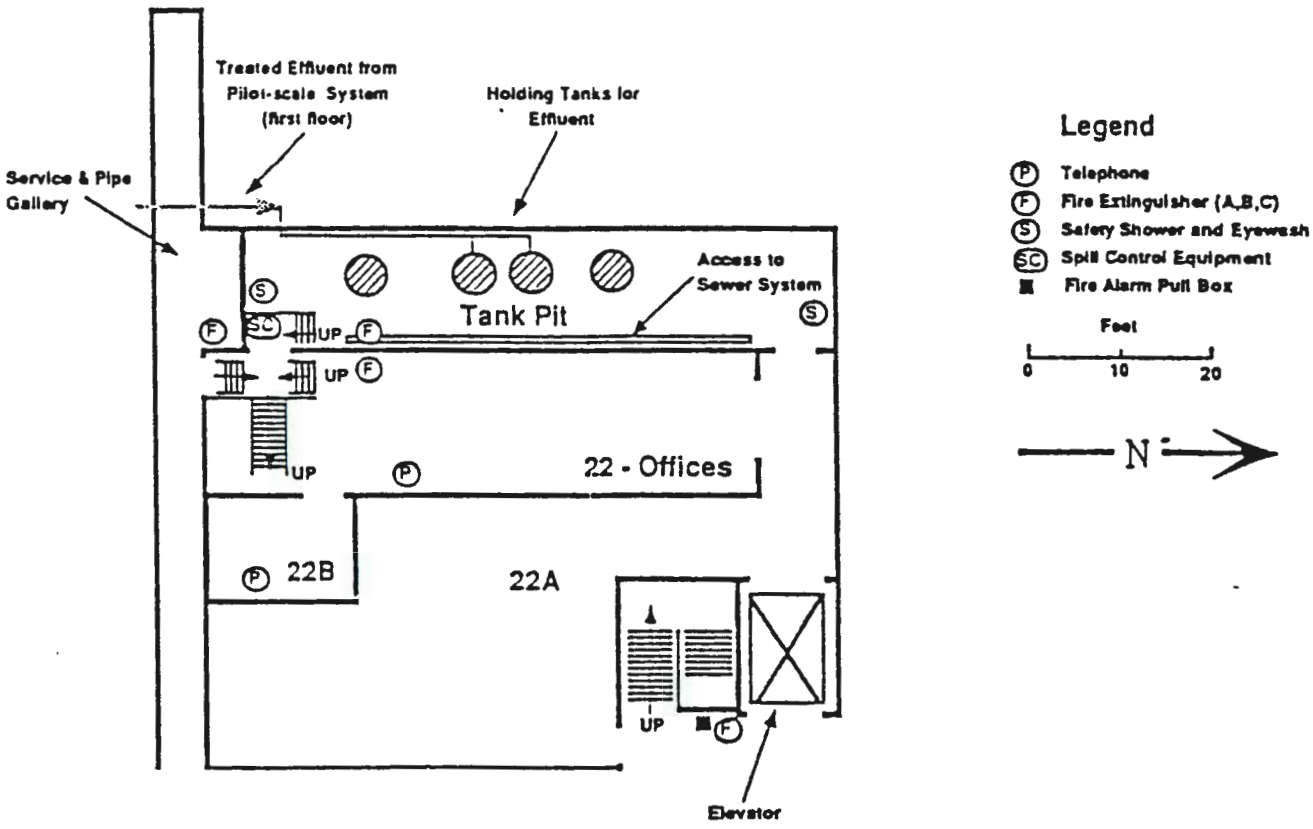


324 Building - Biological Treatment Test Facilities



6 1 6 1 3 1 3 0 0 1 6

324 Building Biological Treatment Test Facilities
Basement Plan, Northwest Segment of Building
Basement Enlargement



Please print or type in the unshaded areas only
(Elite – 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.)*

MO	DAY	YR	
0 4	1 0	8 6	FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)

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	S 0 2	600	G		5				
X-2	T 0 3	20	E		6				
1	S 0 1	22,000	G		7				
2					8				
3					9				
4					10				

9 3 1 2 9 9 1 9 2 1

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.

S01

The 4843 Alkali Metal Storage Facility (4843 AMSF) is used for the storage of alkali metal waste generated from the Fast Flux Test Facility and from various other operations on the Hanford Site that use alkali metals.

The 4843 AMSF currently houses dangerous and mixed alkali metal waste. The dangerous alkali metal waste storage area is separated from the mixed alkali metal storage area by a rope divider. The use of concrete blocks inside the 4843 AMSF provides shielding to protect the environment from radioactive alkali metal waste. Waste storage containers may include steel 5-, 30-, and 55-gallon drums, or sealed piping and sealed components that have been welded closed. The estimated annual quantity of waste has been calculated using design conditions for a maximum storage of 22,000 gallons (185,000 pounds) of alkali metal waste. The 4843 AMSF does not presently contain the estimated quantity; however, there is potential for additional waste to be stored.

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 on 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 one)	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	200	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.

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)				2. PROCESS DESCRIPTION (If a process is not assigned in D(1))
1	D001	185,000	P	S01				Storage/container
2	D002							
3	D003							
4	WT01							
5	WT02							Included with above
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								

(enter "A", "B", "C" or "D" if the "1" is identify attached page)

9 3 1 2 9 9 1 9 2 3

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 4843 AMSF is a storage unit for alkali metal waste that exhibits the dangerous waste characteristics of ignitability (D001), corrosivity (D002), reactivity (D003), and state-only waste [Extremely Hazardous Waste (WT01) and Dangerous (WT02)]. A maximum of 22,000 gallons (185,000 pounds) of dangerous and mixed alkali metal waste may be stored at the 4843 AMSF. Section IV. B. represents the total amount of alkali metal waste that potentially may be stored in this waste management unit.

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 the 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
John D. Wagoner Manager, Richland Operations United States Department of Energy	John D. Wagoner	5/31/91

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		

9 3 1 2 9 9 1 9 2 4

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 D. Wagoner

Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
Richland Operations Office

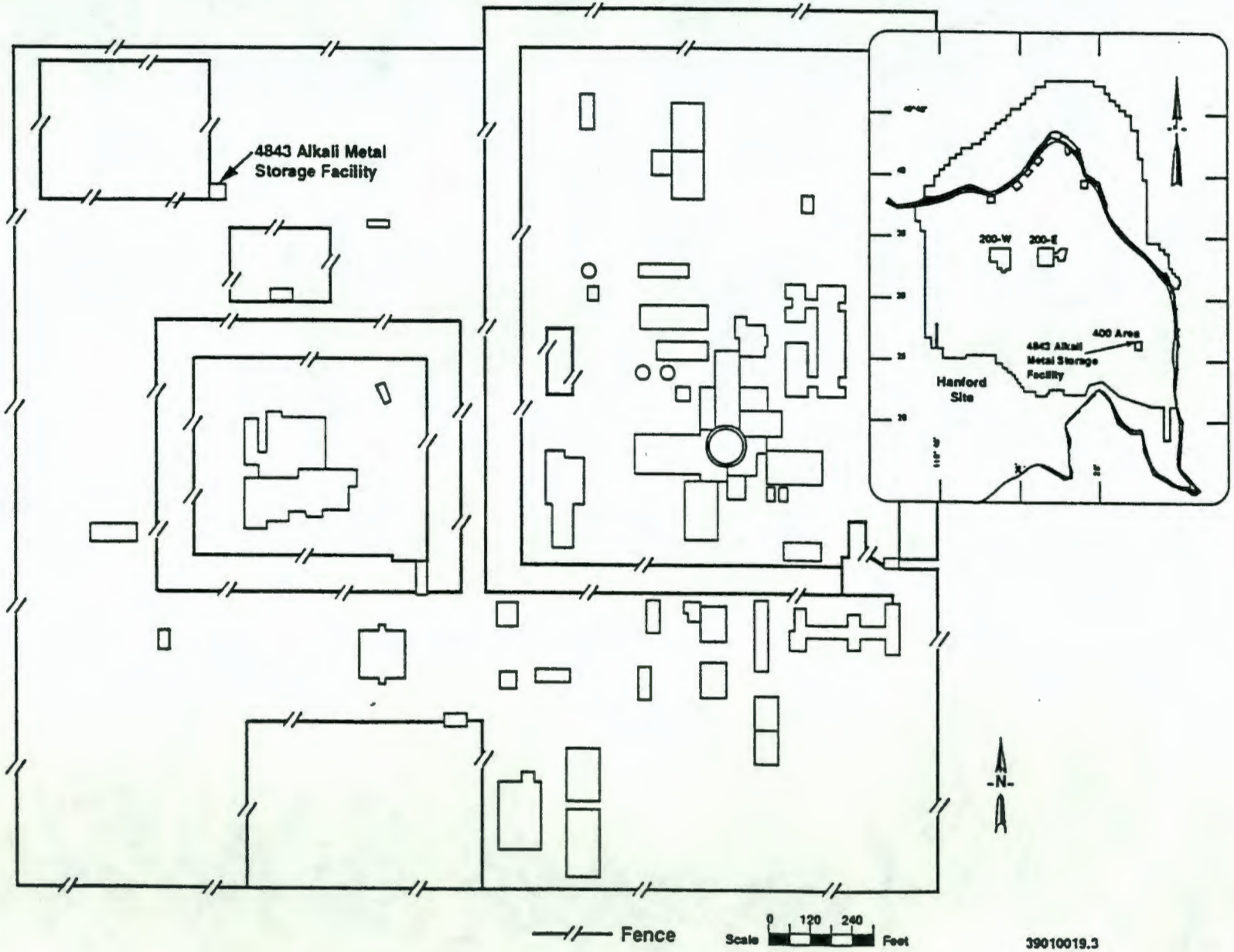
5/31/91
Date

Thomas M. Anderson

Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

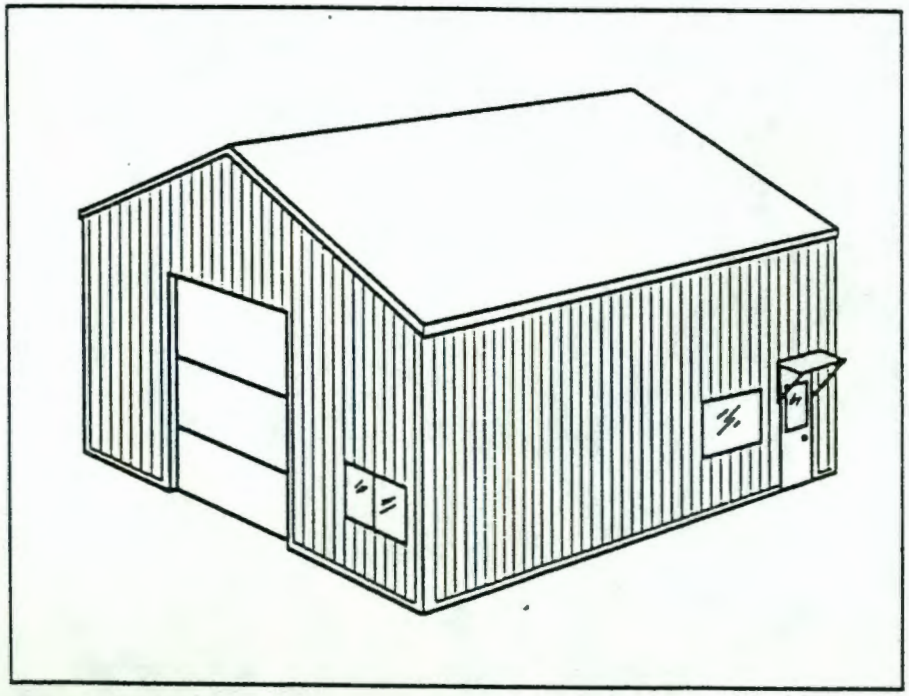
4/23/91
Date

4843 Alkali Metal Storage Facility
Site Plan

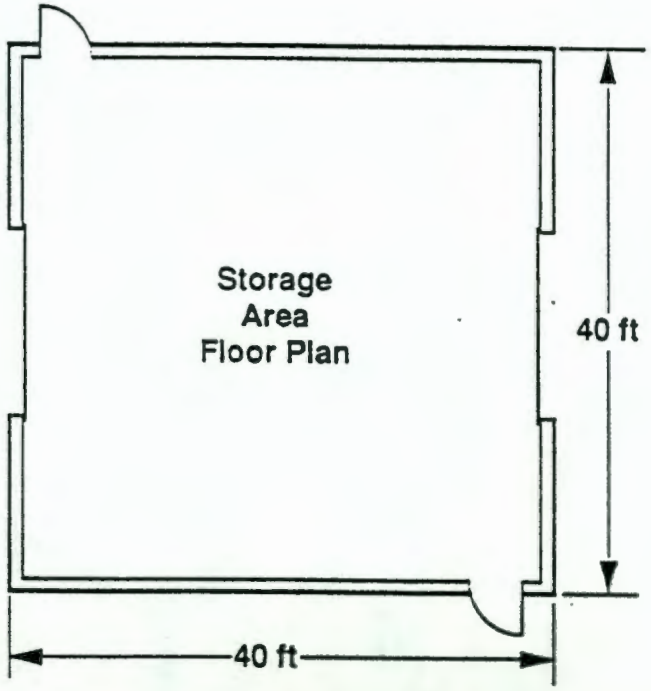


4843 Alkali Metal Storage Facility

Fully insulated bolted steel building rests on a concrete slab.
Two 12-ft roll-up doors used for moving supplies into
and out of the building.



46° 26' 10"
119° 21' 43"



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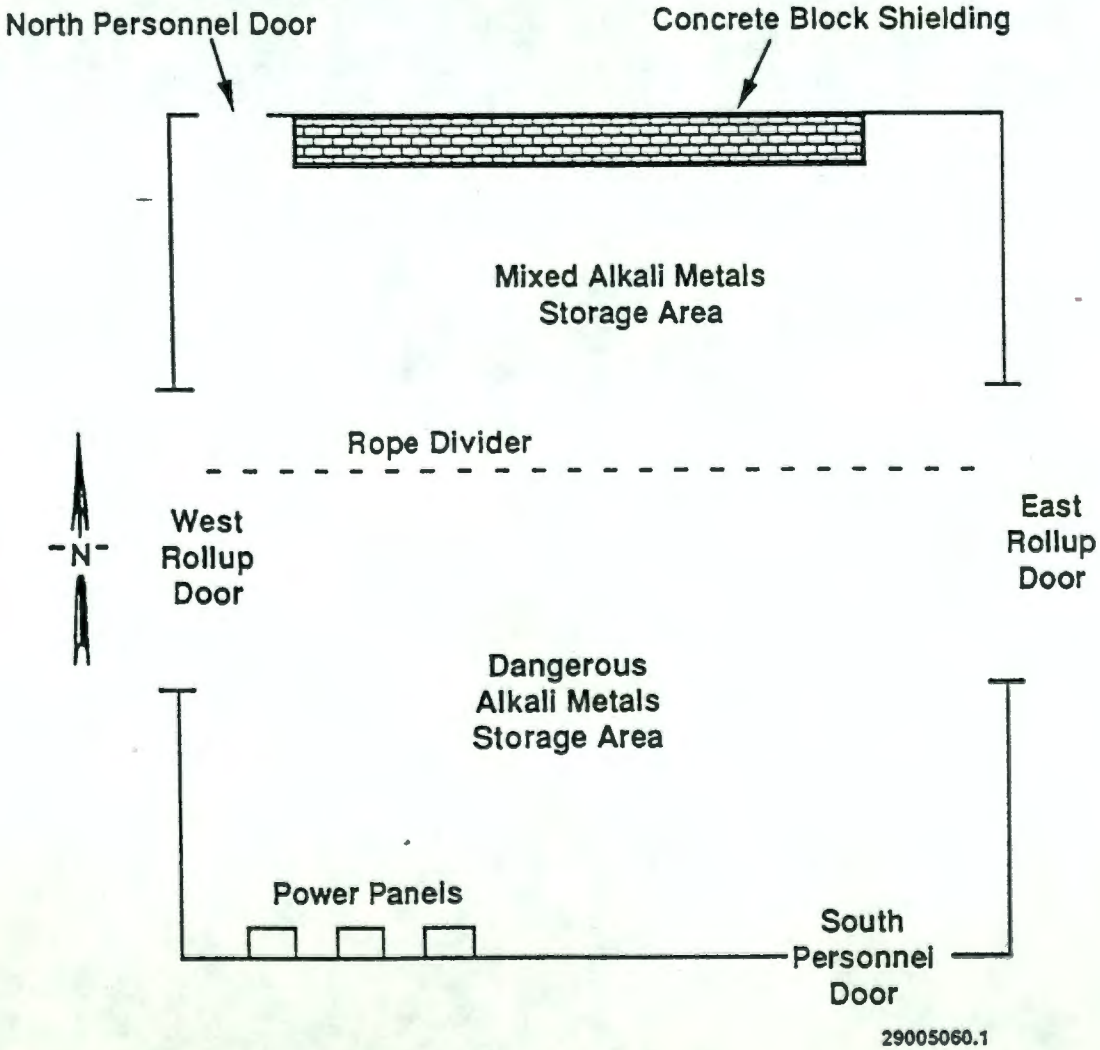
4843 Alkali Metal Storage Facility
Storage Area Floor Plan



4843 ALKALI METAL STORAGE FACILITY--400 AREA

46°26'10"
119°21'43"

87044331-2CN
(PHOTO TAKEN 1987)

9 3 1 2 9 3 9 1 9 2 9

4843 ALKALI METAL STORAGE FACILITY--400 AREA

DANGEROUS ALKALI METAL STORAGE AREA

46°26'10"
119°21'43"

90121329-1CN
(PHOTO TAKEN 1990)

9312939191930

4843 ALKALI METAL STORAGE FACILITY--400 AREA

MIXED ALKALI METAL STORAGE AREA

46°26'10"
119°21'43"

90121329-3CN
(PHOTO TAKEN 1990)

9312939191931

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

FORM 3

DANGEROUS WASTE PERMIT APPLICATION

1. 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.)*

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

MO.	DAY	YR.
0 8		8 4

☐ 2. NEW FACILITY *(Complete item below)*

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 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. 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	T 0 4	150	U		7				
2					8				
3					9				
4					10				

9312916932

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.

T04

The Hanford Patrol Academy Demolition Sites (HPADS) were two adjacent demolition sites located in the 1100 Area of the Hanford Facility. These demolition sites were used to detonate explosive wastes (T04) that were generated on the Hanford Site. The treatment design capacity of the HPADS was 150 gallons (570 liters) of waste per 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
POUNDS	P
TONS	T

METRIC UNIT OF MEASURE	CODE
KILOGRAMS	K
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

9 3 1 2 9 0 9 1 9 3 3

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

I.D. NUMBER *(entered from page 1)*: W A 7 8 9 0 0 0 8 9 6 7

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

LINE NO.	A. DANGEROUS WASTE NO. *(enter code)*	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE *(enter code)*	D. PROCESSES 1. PROCESS CODES *(enter)*				D. PROCESSES 2. PROCESS DESCRIPTION *(If a code is not entered in D(1))*
1	D001	1000	K	T04				Treatment-Other (Demolition)
2	D002							
3	D003							
4	D018							
5	P022							
6	P048							
7	P105							
8	U108							
9	U117							
10	U133							
11	U213							
12	U234							
13	WT01							
14	WT02							
15	WP01							
16	WP03							
17	WC01							
18	WC02							Included with above
19								
20								
21								
22								
23								
24								
25								
26								

9 3 1 2 9 9 1 9 3 4

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 HPADS were used for the treatment of nonradioactive explosive, ignitable, shock-sensitive, and/or reactive discarded chemical compounds. The discarded chemical compounds treated at the HPADS all exhibited the dangerous waste characteristics of ignitability (D001) and reactivity (D003). Some of the compounds also exhibited the dangerous waste characteristic of corrosivity (D002) and may have the state-only designations for toxic extremely hazardous waste (WT01), toxic dangerous waste (WT02), persistent - halogenated hydrocarbons, extremely hazardous waste, (WP01), persistent - polycyclic aromatic hydrocarbons, extremely hazardous waste, (WP03), carcinogenic extremely hazardous waste (WC01), and/or carcinogenic dangerous waste (WC02). The Estimated Annual Quantity of Dangerous Waste (item IV.B) of 1,000 kilograms (2,204 pounds) represents the maximum total amount of waste that is believed to have been treated at the HPADS.

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 the 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
John D. Wagoner, Manager U.S. Department of Energy Richland Field Office	John D. Wagoner	11/18/92

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		

9312291935

X. OPERATOR CERTIFICATION

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John D. Wagoner — 11/18/92

Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
Richland Field Office

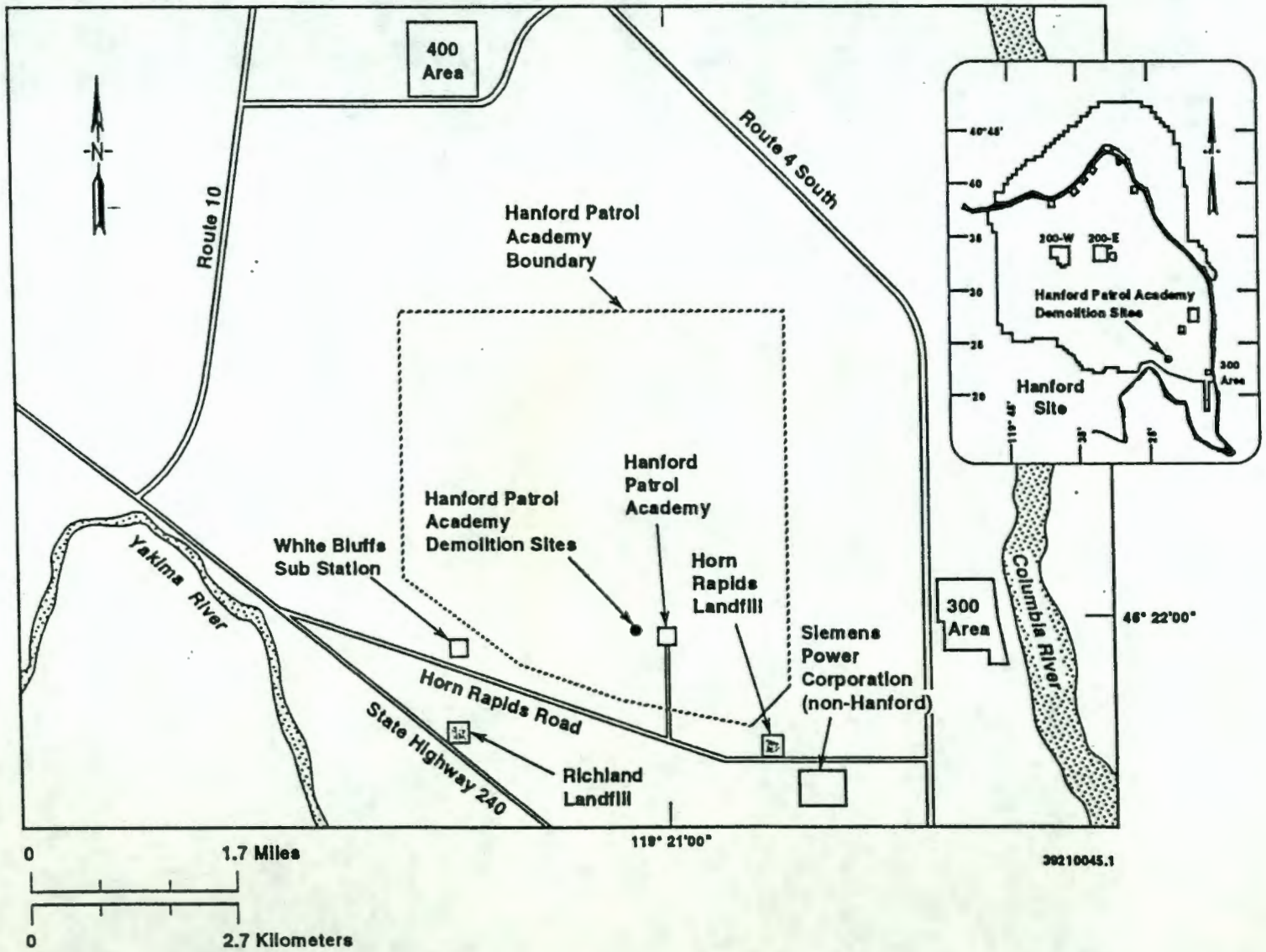
Date

Thomas M. Anderson — 10-30-92

Co-operator
Thomas M. Anderson, President
Westinghouse Hanford Company

Date

Hanford Patrol Academy Demolition Sites



HANFORD PATROL ACADEMY DEMOLITION SITES

46°22'00"
119°21'00"

90072312-79CN
(PHOTO TAKEN 1990)

9312939938