

006583

PLEASE PRINT OR TYPE IN THE INFORMATION IN THIS SPACE
(78) — 4 areas are spaced for alpha type, i.e., 12 characters/line(s).

FORM 3	DANGEROUS WASTE PERMIT APPLICATION	I. EPA/STATE I.D. NUMBER	<table style="width:100%; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; width: 20px;">W</td> <td style="border: 1px solid black; width: 20px;">A</td> <td style="border: 1px solid black; width: 20px;">7</td> <td style="border: 1px solid black; width: 20px;">8</td> <td style="border: 1px solid black; width: 20px;">9</td> <td style="border: 1px solid black; width: 20px;">0</td> <td style="border: 1px solid black; width: 20px;">0</td> <td style="border: 1px solid black; width: 20px;">0</td> <td style="border: 1px solid black; width: 20px;">8</td> <td style="border: 1px solid black; width: 20px;">9</td> <td style="border: 1px solid black; width: 20px;">6</td> <td style="border: 1px solid black; width: 20px;">7</td> </tr> </table>	W	A	7	8	9	0	0	0	8	9	6	7
W	A	7	8	9	0	0	0	8	9	6	7				

FOR OFFICIAL USE ONLY		
APPLICATION APPROVED	DATE RECEIVED <small>(mo., day, & yr.)</small>	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.

<p>A. FIRST APPLICATION (place an "X" below and provide the appropriate date)</p> <p><input type="checkbox"/> 1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)</p> <table style="width: 100px; margin-left: 20px;"> <tr> <td style="width: 20px; text-align: center;">MO.</td> <td style="width: 20px; text-align: center;">DAY</td> <td style="width: 20px; text-align: center;">YR.</td> </tr> <tr> <td style="text-align: center;">11</td> <td style="text-align: center;">24</td> <td style="text-align: center;">48</td> </tr> </table> <p style="font-size: 0.8em; margin-left: 20px;">FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)</p>	MO.	DAY	YR.	11	24	48	<p><input type="checkbox"/> 2. NEW FACILITY (Complete item below.)</p> <table style="width: 100px; margin-left: 20px;"> <tr> <td style="width: 20px; text-align: center;">MO.</td> <td style="width: 20px; text-align: center;">DAY</td> <td style="width: 20px; text-align: center;">YR.</td> </tr> <tr> <td style="border: 1px solid black;"> </td> <td style="border: 1px solid black;"> </td> <td style="border: 1px solid black;"> </td> </tr> </table> <p style="font-size: 0.8em; margin-left: 20px;">FOR NEW FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR IS EXPECTED TO BEGIN</p>	MO.	DAY	YR.			
MO.	DAY	YR.											
11	24	48											
MO.	DAY	YR.											

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

1. FACILITY HAS AN INTERIM STATUS PERMIT 2. FACILITY HAS A FINAL PERMIT

III. PROCESSES — CODES AND DESIGN CAPACITIES

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

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

1. AMOUNT — Enter the amount.

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

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

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

N U M B E R	A. PRO-CESS CODE <small>(from list above)</small>	B. PROCESS DESIGN CAPACITY			FOR OFFICIAL USE ONLY	N U M B E R	A. PRO-CESS CODE <small>(from list above)</small>	B. PROCESS DESIGN CAPACITY			FOR OFFICIAL USE ONLY
		1. AMOUNT <small>(specify)</small>	2. UNIT OF MEASURE <small>(enter code)</small>						1. AMOUNT <small>(specify)</small>	2. UNIT OF MEASURE <small>(enter code)</small>	
X-1	S 0 2	600	G			5					
X-2	T 0 3	20	E			6					
1	T 0 1	5,300	U			7					
2						8					
3						9					
4						10					

Continued from the front

III. PROCESSES (continued)

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

T01

Treatment occurs in a batch process consisting of the addition of sodium hydroxide, ferric nitrate, and sodium nitrite to the 241-Z treatment tank (tank D-5). Tank D-5 receives waste from the Plutonium Finishing Plant (234-5Z).

Sodium hydroxide raises the free hydroxide ion concentration of the treated liquids to greater than 1.5 molar (M). Ferric nitrate solution is added to provide 1% stable solids. Sodium nitrite is added to inhibit corrosion.

Treatment of the mixed wastes assure that the aluminum compounds are solubilized and permits pumping of the treated liquid through double encased lines to the collection tank in the 244-TX receiver building located approximately one mile north of the 241-Z building. The ultimate destination of the waste is the double-shell tanks. Tank D-5 is designed to treat 5,300 gallons per day. Nominal out-flow from tank D-5 is 10,200 gallons per week with a maximum expected out-flow of 14,000 gallons per week.

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 waste: 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:

- 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.
- 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.
- 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

Continued from page 2.

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

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

IV. DESCRIPTION OF DANGEROUS WASTES (continued)													
LINE NO.	A. DANGEROUS WASTE NO. (enter code)			B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES							
	1	2	3			1. PROCESS CODES (enter)			2. PROCESS DESCRIPTION (if a code is not entered in D(1))				
1	D	0	0	2	3.0 x 10 ⁶	P	T	0	1				Chemical Treatment
2	D	0	0	7									
3	D	0	0	8									
4	W	T	0	1									
5	W	T	0	2									Included With Above
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													

Continued from the front

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

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

Before treatment, the liquid effluent in tank D-5 is corrosive (pH is less than 2.0) containing predominantly nitric acid. Additional chemical constituents known to be present through process knowledge, modeling, and some process sampling include chromium, lead, aluminum nitrate, aluminum fluoride, and lower concentrations of potassium hydroxide, potassium fluoride, magnesium nitrate, ferric nitrate, calcium nitrate, and other trace metal ions. Depending on the concentration and the actual waste stream being treated, these waste constituents may qualify the waste stream for designation as EP Toxic (D007, D008) and Toxic (WT01 or 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 attached drawings and photographs

LATITUDE (degrees, minutes, & seconds)

LONGITUDE (degrees, minutes, & seconds)

--	--	--	--	--	--	--	--	--	--

--	--	--	--	--	--	--	--	--	--

VIII. FACILITY OWNER

A. If the facility owner is also the facility operator as listed in Section VII on Form 1, "General Information", 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

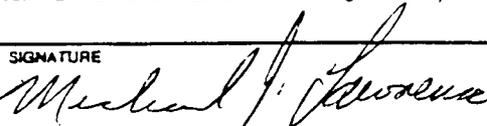
5. ST.

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

SIGNATURE 

DATE SIGNED 10/22/89

X. OPERATOR CERTIFICATION

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

NAME (print or type)

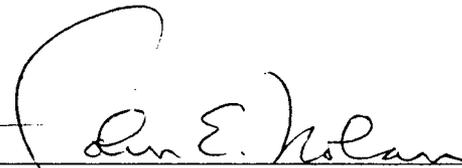
SIGNATURE

DATE SIGNED

SEE ATTACHMENT

X. OPERATOR CERTIFICATION

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



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

11/13/89
Date

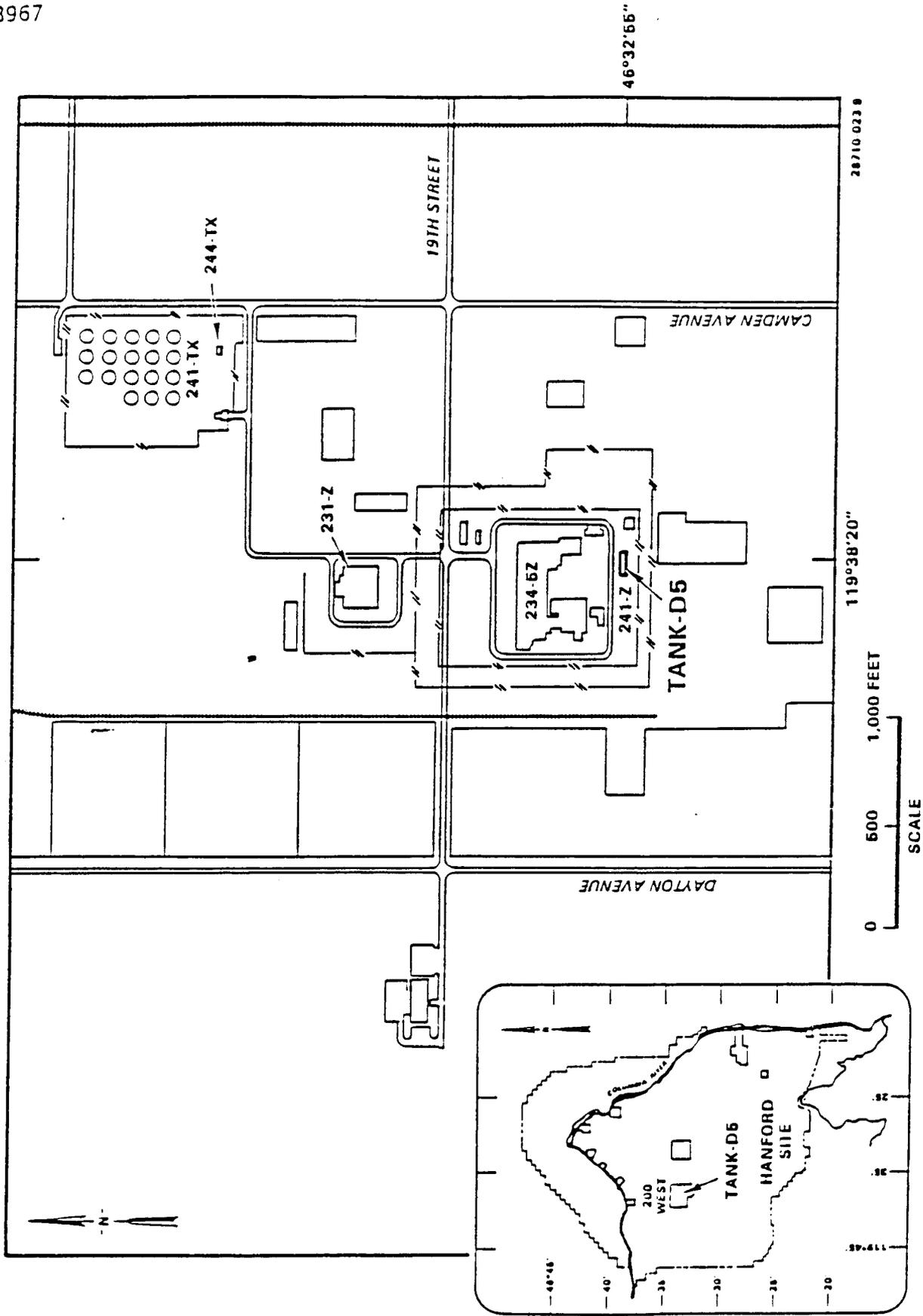


Owner/Operator
Michael J. Lawrence, Manager
U.S. Department of Energy
Richland Operations Office

12/27/89
Date

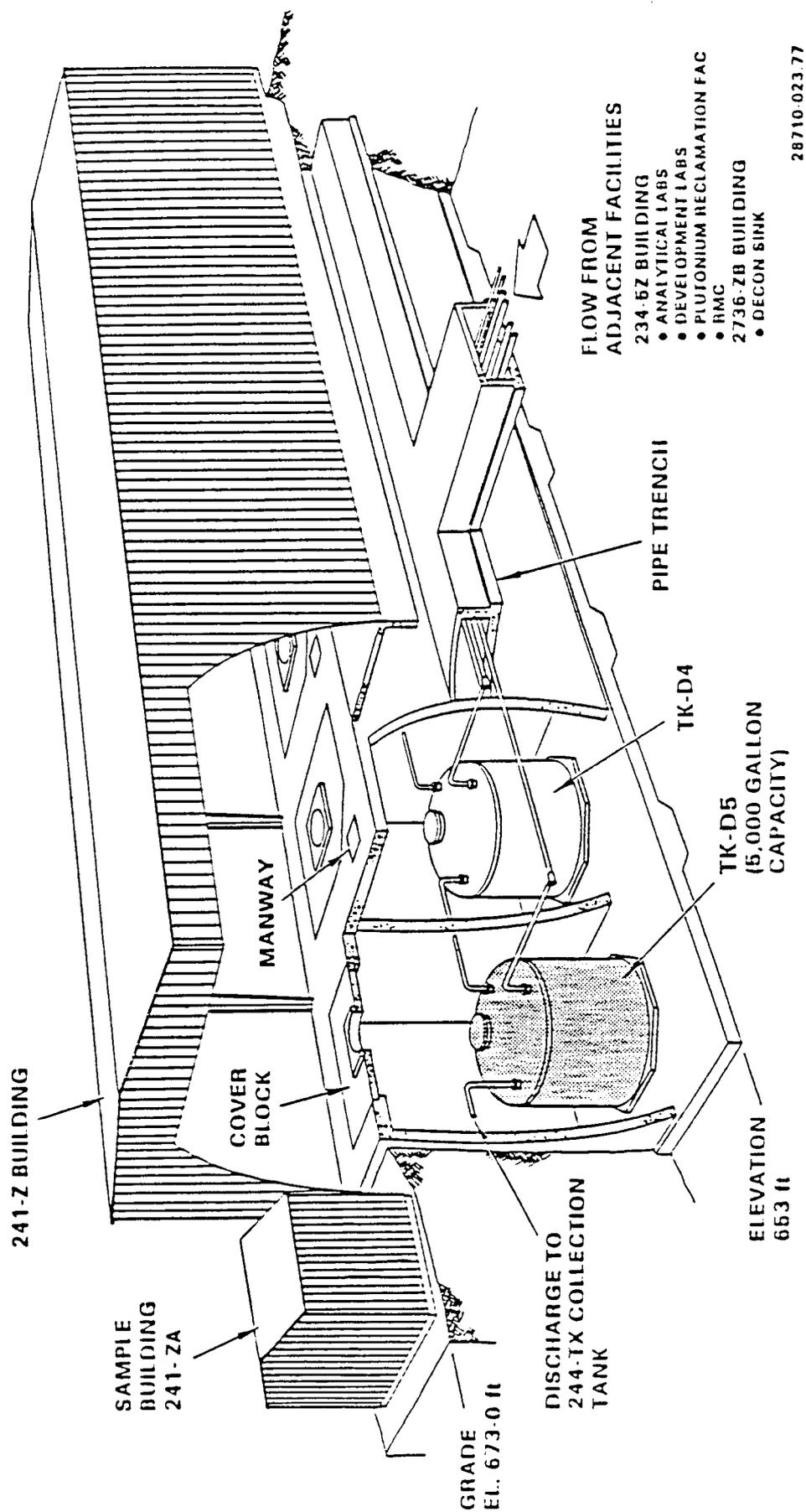
WA7890008967

241-Z BUILDING TANK-D5 SITE PLAN



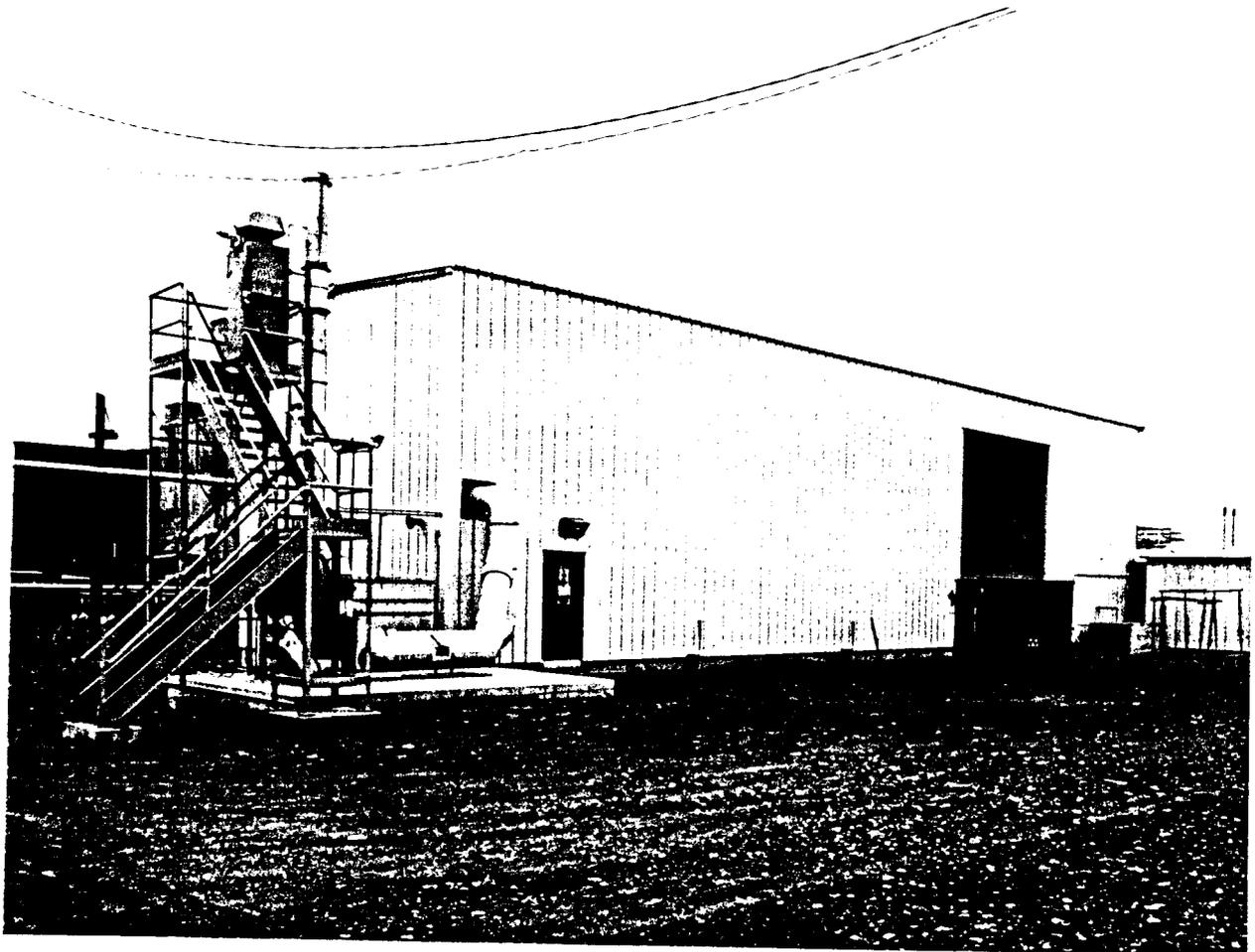
WA7890008967

241-Z BUILDING TANK D5



WA7890008967

241-Z BUILDING



46°32'55"
119°38'20"

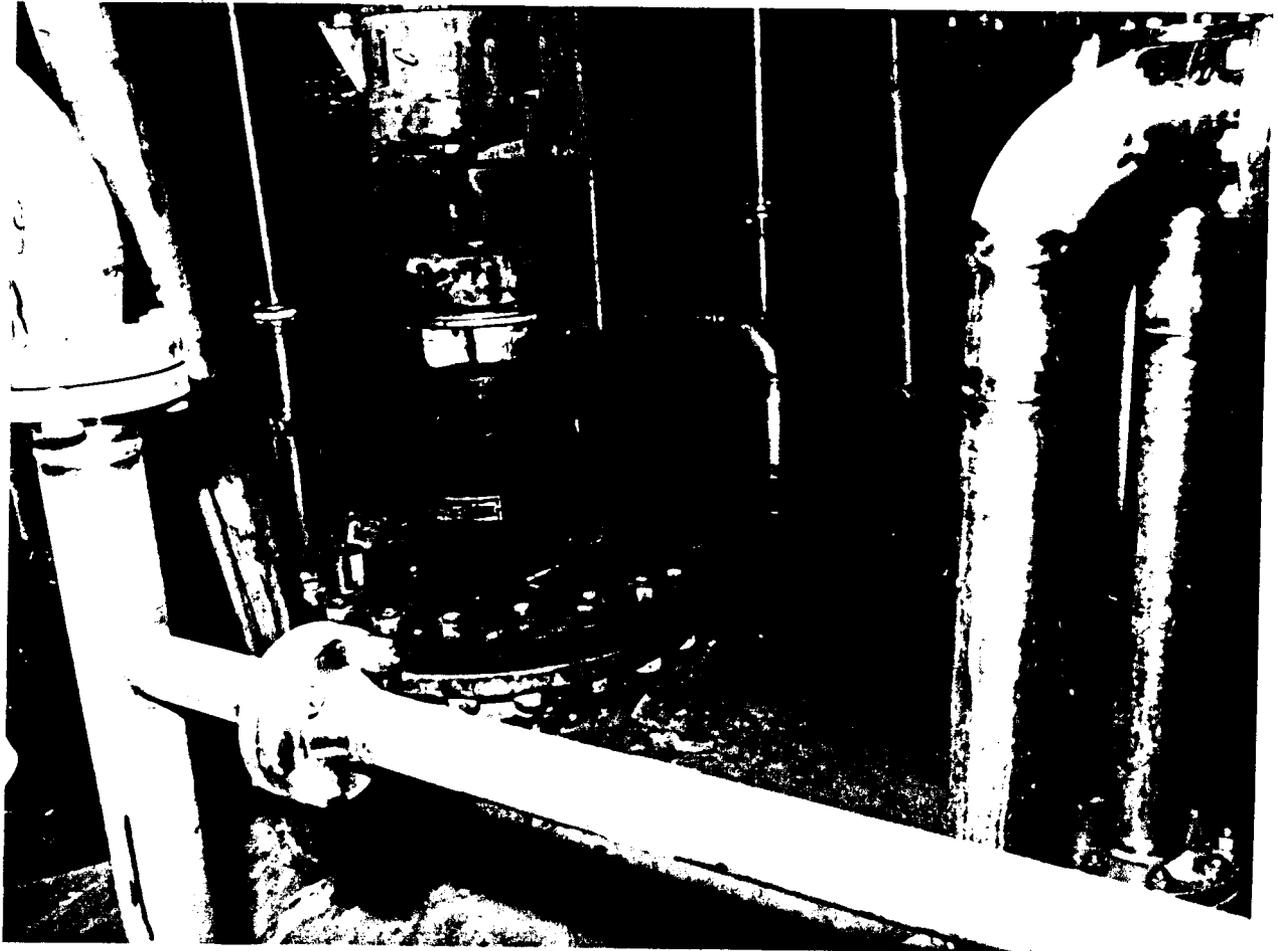
8106219-5CN

(PHOTO TAKEN 1981)

28710-023.36

WA7890008967

TANK D5



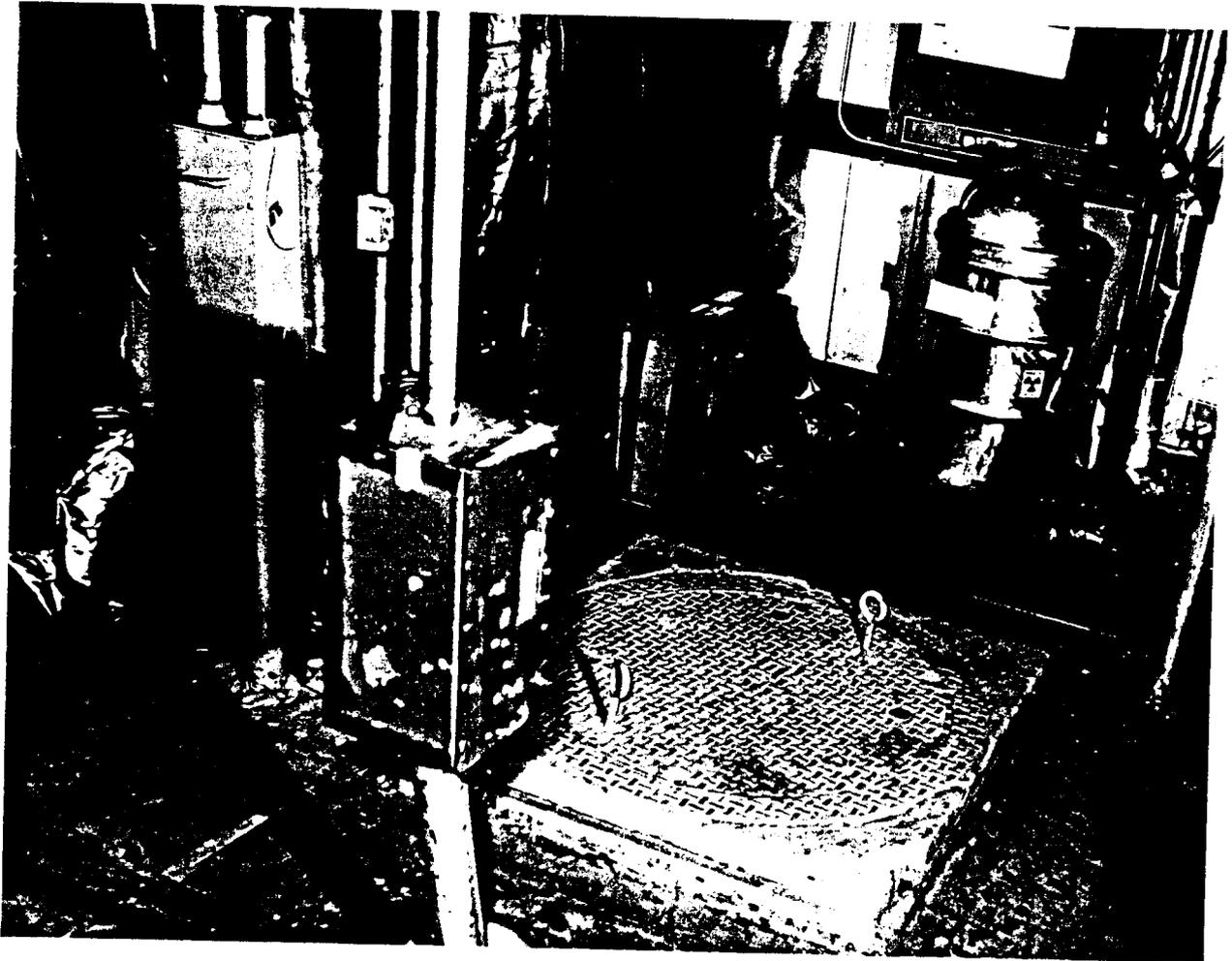
46°32'55"
119°38'20"

8701477-136CN

28710-023.39

WA7890008967

D5 VAULT COVER



46°32'55"
119°38'20"

8706219-7CN

(PHOTO TAKEN 1987)

28710-023.35