

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	I. EPA/STATE I.D. NUMBER <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:20px; text-align: center;">W</td> <td style="width:20px; text-align: center;">A</td> <td style="width:20px; text-align: center;">7</td> <td style="width:20px; text-align: center;">8</td> <td style="width:20px; text-align: center;">9</td> <td style="width:20px; text-align: center;">0</td> <td style="width:20px; text-align: center;">0</td> <td style="width:20px; text-align: center;">8</td> <td style="width:20px; text-align: center;">9</td> <td style="width:20px; text-align: center;">6</td> <td style="width:20px; text-align: center;">7</td> </tr> </table>	W	A	7	8	9	0	0	8	9	6	7
W	A	7	8	9	0	0	8	9	6	7			

FOR OFFICIAL USE ONLY		
APPLICATION APPROVED	DATE RECEIVED <i>(mo., day, & yr.)</i>	COMMENTS
		Approved 07/05/00

II. FIRST OR REVISED APPLICATION

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

A. FIRST APPLICATION (place an "X" below and provide the appropriate date)													
<input type="checkbox"/> 1. EXISTING FACILITY <i>(See instructions for definition of "existing" facility. Complete Item below.)</i> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:30px; text-align: center;">MO.</td> <td style="width:30px; text-align: center;">DAY</td> <td style="width:30px; text-align: center;">YEAR</td> </tr> <tr> <td style="text-align: center;">03</td> <td style="text-align: center;">22</td> <td style="text-align: center;">1943</td> </tr> </table> <p style="font-size: small;">*FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left) *The date construction of the Hanford Facility commenced.</p>	MO.	DAY	YEAR	03	22	1943	<input type="checkbox"/> 2. NEW FACILITY (Complete item below) <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:30px; text-align: center;">MO.</td> <td style="width:30px; text-align: center;">DAY</td> <td style="width:30px; text-align: center;">YEAR</td> </tr> <tr> <td style="height: 20px;"> </td> <td style="height: 20px;"> </td> <td style="height: 20px;"> </td> </tr> </table> <p style="font-size: small;">FOR NEW FACILITIES, PROVIDE THE DATE, (mo., day, & yr.) OPERATION BEGAN OR IS EXPECTED TO BEGIN</p>	MO.	DAY	YEAR			
MO.	DAY	YEAR											
03	22	1943											
MO.	DAY	YEAR											
B. REVISED APPLICATION (place an "X" below and complete Section I above)													
<input checked="" type="checkbox"/> 1. FACILITY HAS AN INTERIM STATUS PERMIT	<input checked="" type="checkbox"/> 2. FACILITY HAS A FINAL PERMIT												

III. PROCESS - CODES AND CAPACITIES

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

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

1. AMOUNT - Enter the amount.

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

PROCESS	PRO-CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS	PRO-CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
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			
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS	INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
Disposal:			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
INJECTION WELL	D80	GALLONS OR LITERS			
LANDFILL	D81	ACRE-FEET <i>(the volume that would cover one acre to a depth of one foot)</i> 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.

A. PROCESS	B. PROCESS DESIGN CAPACITY
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LINE NUMBER	CODE (from list above)	1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY			
X-1	S02	600	G				
X-2	T03	20	E				
1	S02	69,300	L				
2	T01	16,277	V				
3							
4							
5							
6							
7							
8							
9							
10							

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) support the Plutonium Finishing Plant (PFP), which was constructed in November 1948. The 241 -Z consists of storage tanks D-4, D-5, D-7, D-8, and an overflow tank. Tanks D-5 and D-8 also serve as the waste treatment tanks. These tanks, located in the belowground portion of the 241-Z Building, have the combined storage capacity of 69,300 liters (18,307 gallons). Tanks D-4 and D-5 each have a capacity of 16,400 liters (4,332 gallons), while tanks D-7 and D-8 each have a capacity of 17,900 liters (4,729 gallons). The overflow tank, located in the D-7 Vault, has a capacity of 700 liters (185 gallons) and is in place to serve only in a capacity for receiving waste that might overflow from one of the other tanks. The overflow tank is not in place to serve as storage capacity for dangerous waste. The 241 -Z accumulates and stores mixed waste generated from PFP process activities. Once treated, the waste is stored before final transfer to the Double-Shell Tank (DST) System. The original construction of 241-Z included a fifth 16,400 liter (4,332 gallon) tank that also is located in the belowground portion of the facility. Tank D-6 was taken out of service and isolated from the 241 -Z tank system in 1972 and never stored dangerous waste. The purpose of identifying tank D-6 is to note its existence within the 241 -Z Building, but not to include it with the tank system covered by the Part A, Form 3, for the 241 -Z. The maximum process design capacity for tank storage is 69,300 liters (18,307 gallons).

T01

Treatment that occurs in the tanks D -5 and D-8 consists of a batch process that includes the addition of sodium hydroxide or potassium hydroxide, sodium nitrate, ferric nitrate, and water. The sodium hydroxide is added to adjust the pH of the waste to make the waste more amenable for transfer to the DST System. Ferric nitrate solution is added to provide 1 percent stable solids for transfer to the DST System, while water is added to adjust the plutonium concentration of the waste to be transferred so that the waste meets the DST System criteria for acceptance. This treatment process makes the waste more amenable for transfer to the DST System. The maximum process design capacity for the tank treatment is 16,277 liters per day (4,300 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 describe 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 measurer 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:

- 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	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
1	D002	1,360,777	K	T01				Treatment - Tank
2	D004		↓	↓				↓
3	D005		↓	↓				↓
4	D006		↓	↓				↓
5	D007		↓	↓				↓
6	D008		↓	↓				↓
7	D009		↓	↓				↓
8	D010		↓	↓				↓
9	D011		↓	↓				↓
10	D019		↓	↓				↓
11	WT01		↓	↓				↓
12	WT02		↓	↓				Included With Above

VIII. FACILITY OWNER			
<input checked="" type="checkbox"/> 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.			
<input type="checkbox"/> 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>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.</i>			
NAME (print or type)	SIGNATURE	DATE SIGNED	
Keith A. Klein, Manager U.S. Department of Energy Richland Operations Office	Keith A. Klein	05/05/2000	
X. OPERATOR CERTIFICATION			
<i>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.</i>			
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.

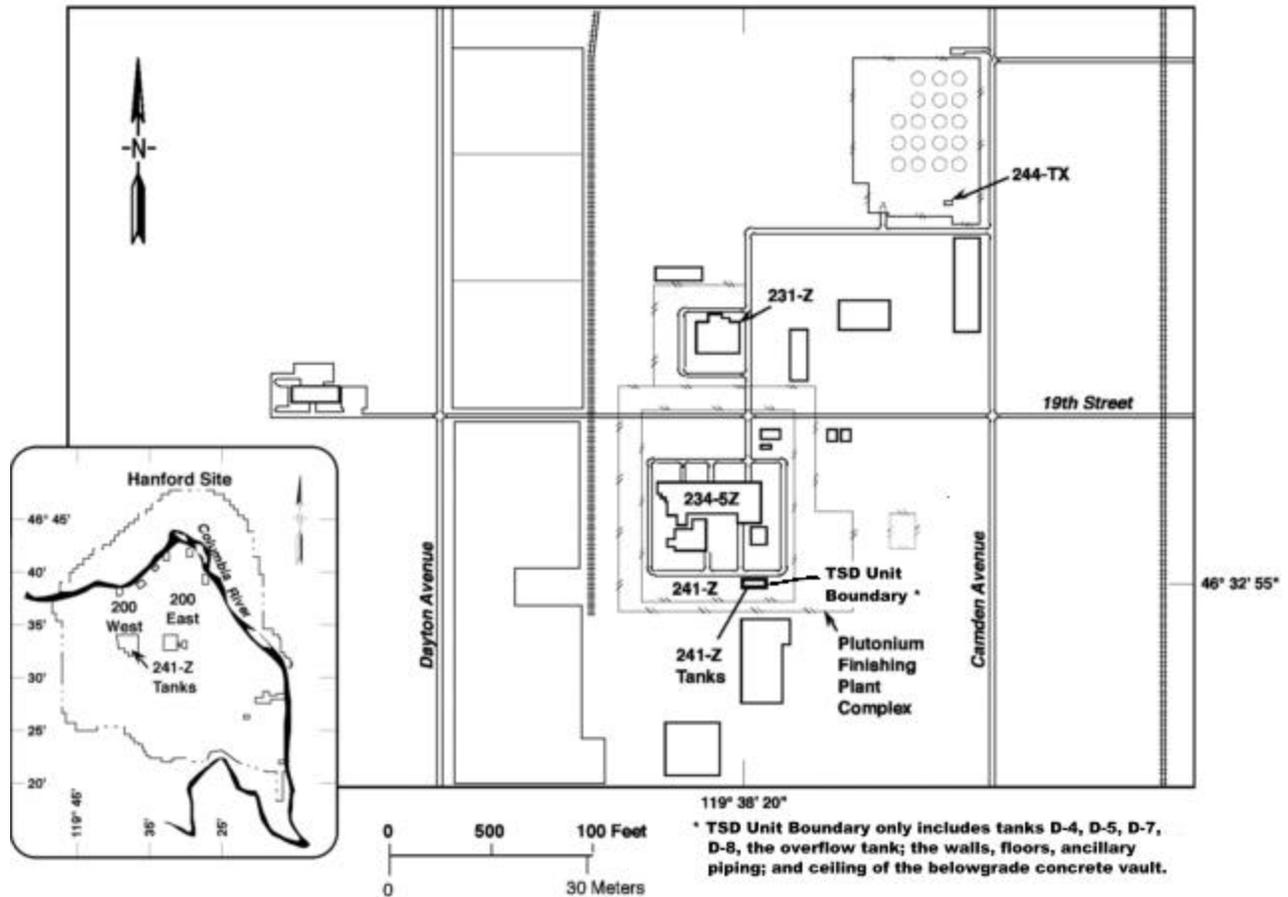
Keith A. Klein
Owner/Operator
Keith A. Klein, Manager
U.S. Department of Energy
Richland Operations Office

5/5/00
Date

D. B. Van Leuven
Co-Operator
R. D. Hanson,
President and Chief Executive Officer
Fluor Daniel Hanford, Inc.

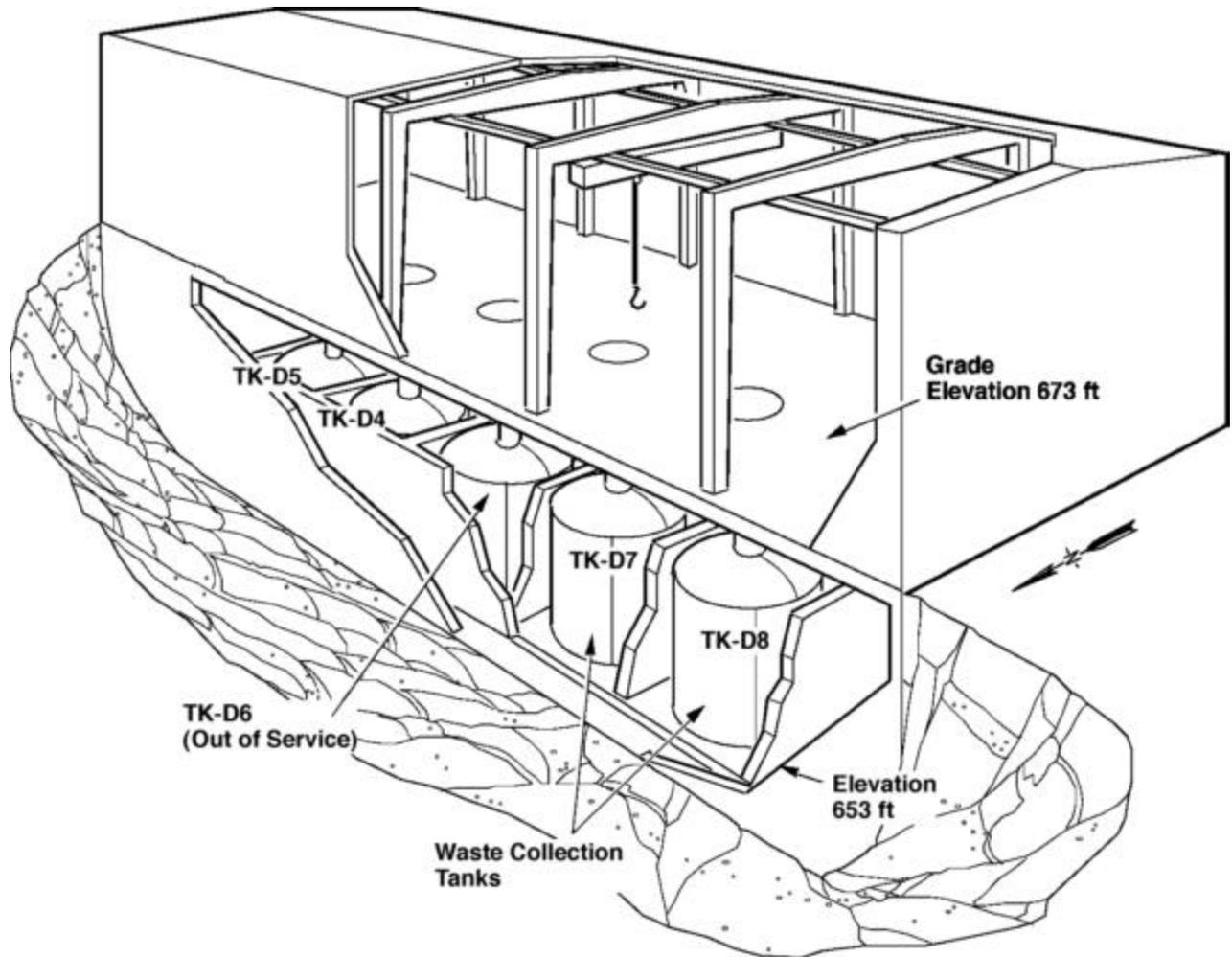
4/10/00
Date

241-Z Treatment and Storage Tanks Site plan



H96070161.5

241-Z Building Cutaway View



241-Z Building



46°32'58"
119°38'20"

8706219-5CN
(PHOTO TAKEN 1987)