



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

**FEB 05 1999**

99-EAP-134

Mr. Michael A. Wilson  
Program Director  
Nuclear Waste Program  
State of Washington  
Department of Ecology  
1315 West Fourth Avenue  
Kennewick, Washington 99336



Dear Mr. Wilson:

**HANFORD FACILITY DANGEROUS WASTE PART A (PART A), FORM 3, PERMIT APPLICATION, FOR THE B PLANT COMPLEX (TSD: TS-2-3), REVISION 6**

Enclosed is the Part A, Form 3, Permit Application, for the B Plant Complex, Revision 6. The B Plant Complex is located in the 200 Area of the Hanford Facility.

The B Plant Complex Part A, Form 3, Revision 6, was prepared to reflect changes in the B Plant Complex treatment, storage, and disposal unit that occurred during the transition phase of facility decommissioning. The most significant changes are the elimination of the text not required by the Part A, Form 3, instruction, and the removal of the International Standards Organization (ISO) West Interim Organic Storage (ISO West) Tank. This tank had never contained waste and was closed per an administrative closure by the State of Washington Department of Ecology.

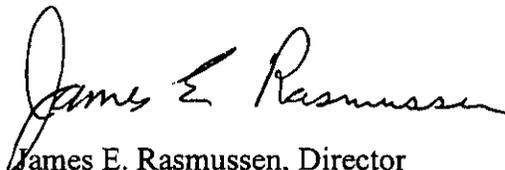
FEB 05 1999

Mr. Michael A. Wilson  
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Should you have any questions regarding the Part A , Form 3, please contact Ellen Mattlin of the U.S. Department of Energy, Richland Operations Office, on (509) 376-2385, or Sue Price, of Fluor Daniel Hanford, Inc., on (509) 376-1653.

Sincerely,



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

EAP:EMM



William D. Adair, Director  
Environmental Protection  
Responsible Party for  
Fluor Daniel Hanford, Inc.

Enclosure:  
Hanford Facility Dangerous  
Waste Part A, Form 3, for the  
B Plant Complex, Revision 6

cc w/encl:

W. D. Adair, FDH

~~ERIC, FIDH~~

Russell Jim, YIN

Donna L. Powaukee, NPT

J. R. Wilkinson, CTUIR

T. A. Wooley, Ecology

cc w/o encl:

G. J. LeBaron, BWHC

S. M. Price, FDH

J. G. Adler, WMH

J. A. Winterhalder, WMH

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

<b>FORM</b> <b>3</b>	<b>DANGEROUS WASTE PERMIT APPLICATION</b>	1. EPA/STATE I.D. NUMBER
		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. 03	DAY 22	YR. 43	* 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.	MO.	DAY	YR.	FOR NEW FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR IS EXPECTED TO BEGIN
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**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 codes(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided on the (Section III-C).

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

1. AMOUNT - Enter the amount.

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

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

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS.....	G	LITERS PER DAY.....	V	ACRE-FEET.....	A
LITERS.....	L	TONS PER HOUR.....	D	HECTARE-METER.....	F
CUBIC YARDS.....	Y	METRIC TONS PER HOUR.....	W	ACRES.....	B
CUBIC METERS.....	C	GALLONS PER HOUR.....	E	HECATRES.....	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			FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY			FOR OFFICIAL USE ONLY
		1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)					1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)		
X-1	S 0 2	600	G			5	S06	35,170	C		
X-2	T 0 3	20	E			6	S02	104,236	L		
1	S02	347,056	L			7	S02	363,142	L		
2	T01	79,493	V			8					
3	T01	27,633	V			9					
4	S01	51,008	L			10					

Continued from the front.

III. PROCESSES (continued)

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESS (code "TO4"). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

The SO2 code for the miscellaneous tank storage system includes TK-100, which was moved from the Waste Encapsulation Storage Facility onto the B Plant canyon deck in 1998.

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:

- 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 (entered from page 1)									
W A 7 8 9 0 0 0 8 9 6 7									
IV. DESCRIPTION OF DANGEROUS WASTES (continued)									
L I N E	A. DANGEROUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEA- SURE (enter code)	D. PROCESSES					
				1. PROCESS CODES (enter)			2. PROCESS DESCRIPTION (if a code is not entered in D(1))		
1	D008	6,804	K	S01					Storage - Container
2	WT01								(Cell 4 Container Storage)
3	WT02								Included with above.
4	D002	6,804	K	S06					Containment Building/Storage
5	D004								
6	through								
7	D011								
8	F001								
9	through								
10	F005								
11	WT01								
12	WT02								Included with above.
13	D002	17,162*	K	S02					Storage - Tank
14	D004								(276-BA Facility external organic mixed waste storage)
15	through								
16	D011								
17	F001								
18	through								
19	F005								
20	WT01								
21	WT02								Included with above.
22	* The quantity of waste represents past operational activities in the 276-BA Facility external organic mixed waste storage system. There are no plans to use the 276-BA Facility external organic mixed waste storage system for mixed waste activities.								
23									
24									
25									
26									

Continued from page 2.

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

I. D. NUMBER (entered from page 1)

W	A	7	8	9	0	0	0	8	9	6	7
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IV. DESCRIPTION OF DANGEROUS WASTES (continued)

L I N E	A. DANGEROUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEA- SURE (enter code)	D. PROCESSES	
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	D002	18,927*	K	S02	Storage - Tank (organic mixed waste storage)
2	D004				
3	through				
4	D011				
5	F001				
6	through				
7	F005				
8	WT01				
9	WT02				Included with above.
10	* The quantity of waste represents past operational activities of the organic mixed waste storage system. There are no plans to use the organic mixed waste storage system for mixed waste activities.				
11	D002	90,992**	K	T01	Treatment - Tank (low-level waste concentrator treatment tank system)
12	D004				
13	through				
14	D011				
15	F001				
16	through				
17	F005				
18	WT01				
19	WT02				Included with above.
20	** The quantity of waste represents past operational activities of the low-level waste concentrator. There are no plans to use the low-level waste concentrator for mixed waste activities.				
21					
22					
23					
24					
25					
26					

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

I. D. NUMBER (entered from page 1)

W	A	7	8	9	0	0	0	8	9	6	7
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IV. DESCRIPTION OF DANGEROUS WASTES (continued)

L I N E	A. DANGEROUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEA- SURE (enter code)	D. PROCESSES			
				1. PROCESS CODES (enter)			2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	D002	41,146*	K	S02	T01		Storage - Tank/Treatment-Tank
2	D004						(NCAW storage and treatment tank system)
3	through						
4	D011						
5	F001						
6	through						
7	F005						
8	WT01						
9	WT02						Included with above.
10	* The quantity of waste represents past operational activities of the NCAW storage and treatment system. There are no plans to use the NCAW storage and treatment system for mixed waste activities.						
11	D002	1,044,732**	K	S02	T01		Storage - Tank/Treatment-Tank
12	D004						(low-level waste storage and treatment tank system)
13	through						
14	D011						
15	F001						
16	through						
17	F005						
18	WT01						
19	WT02						Included with above
20	** The quantity of waste represents past operational activities of the low-level waste storage and treatment system. There are no plans to use the low-level waste storage and treatment system for mixed waste activities.						
21							
22							
23							
24							
25							
26							

Continued from page 2.

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

I. D. NUMBER (entered from page 1)

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

IV. DESCRIPTION OF DANGEROUS WASTES (continued)											
L I N E	A. DANGEROUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEA- SURE (enter code)	D. PROCESSES							
				1. PROCESS CODES (enter)				2. PROCESS DESCRIPTION (if a code is not entered in D(1))			
1	D002	339,538*	K	S02							Storage - Tank (miscellaneous)
2	D004										
3	through										
4	D011										
5	F001										
6	through										
7	F005										
8	WT01										
9	WT02										Include with above.
10	* The quantity of waste represents past operational activities of the miscellaneous tank storage system. There are no plans to use the miscellaneous tank storage system for mixed waste activities.										
11											
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**X. OPERATOR CERTIFICATION**

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

  
\_\_\_\_\_  
Owner/Operator  
James C. Hall, Acting Manager  
U.S. Department of Energy  
Richland Operations Office

2-5-99  
Date

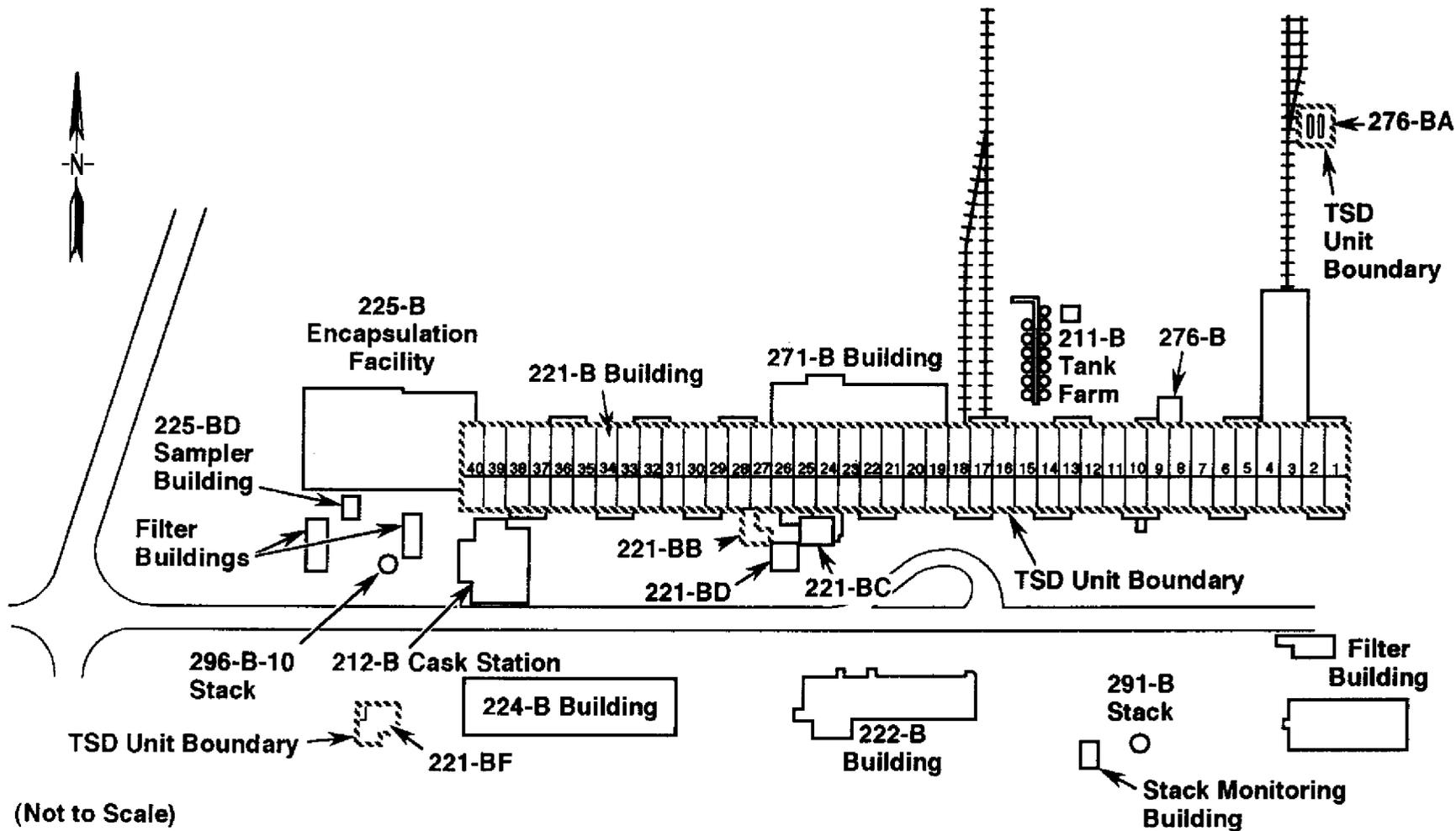
  
\_\_\_\_\_  
R. D. Hanson,  
President and Chief Executive Officer  
Fluor Daniel Hanford, Inc.

1-20-99  
Date



# B Plant Complex TSD Unit Boundary

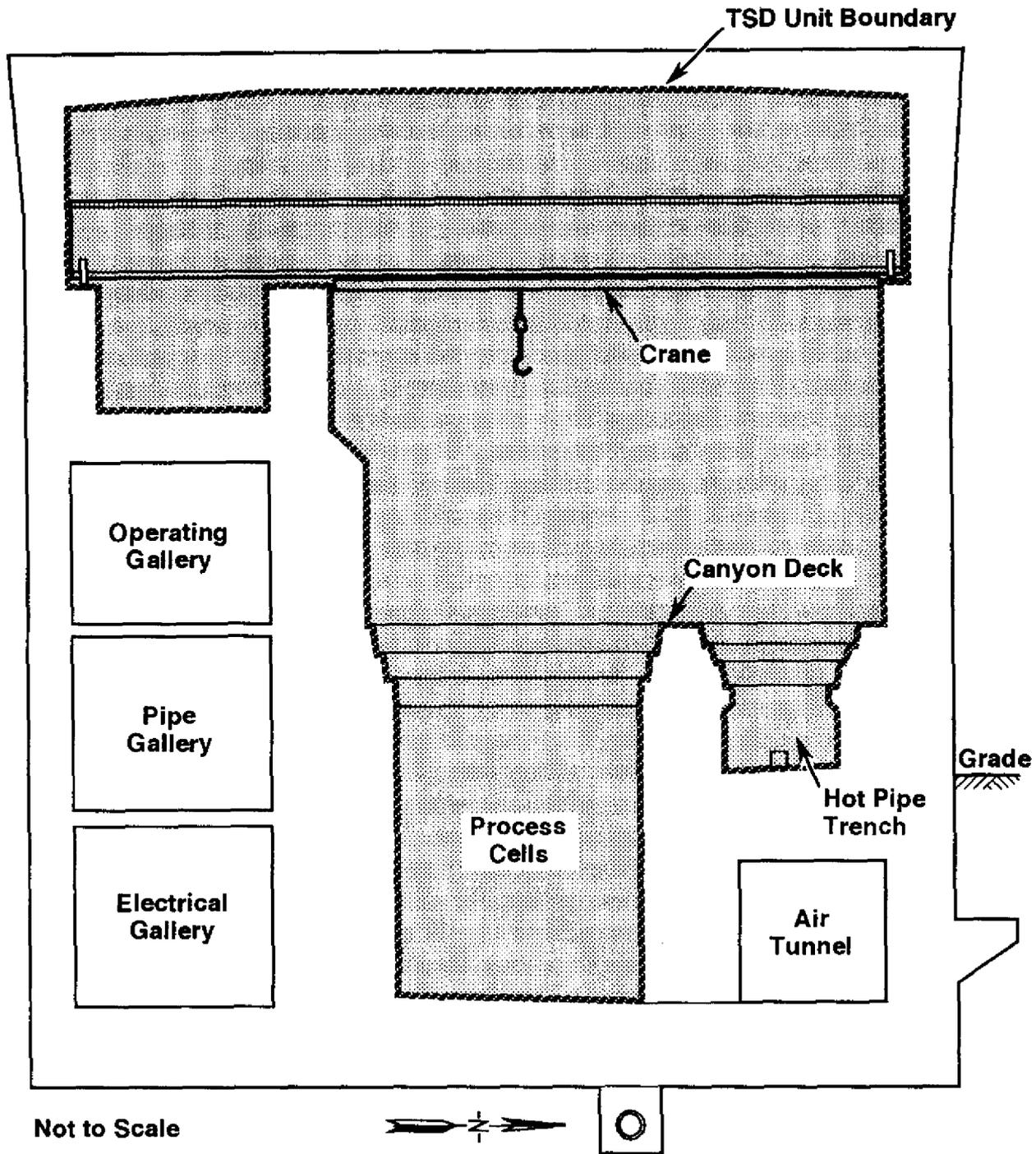
WA7890008967



Note: 221-BB, 221-BF, and 276-B A are included in the TSD Unit Boundary

H95110328.3R1

### 221-B Building TSD Unit Boundary (typical cross-sectional view)



Not to Scale

Note: Shaded portions denote areas that are within the TSD Unit Boundary

# B Plant Complex Aerial View



46°33'26"  
119°32'28"

98070285-72CN  
(PHOTO TAKEN 1998)