

		WASHINGTON STATE DEPARTMENT OF <b>E C O L O G Y</b>		<b>Dangerous Waste Permit Application Part A Form</b>	
Date Received		Reviewed by: <i>[Signature]</i>		Date: 0 9 2 2 2 0 0 8	
Month	Day	Year		Approved by: <i>[Signature]</i>	
0	9	1	9	2	0 0 8
<b>I. This form is submitted to: (place an "X" in the appropriate box)</b>					
<input checked="" type="checkbox"/>		Request modification to a final status permit (commonly called a "Part B" permit)			
<input type="checkbox"/>		Request a change under interim status			
<input type="checkbox"/>		Apply for a final status permit. This includes the application for the initial final status permit for a site or for a permit renewal (i.e., a new permit to replace an expiring permit).			
<input type="checkbox"/>		Establish interim status because of the wastes newly regulated on:		(Date)	
List waste codes:					
<b>II. EPA/State ID Number</b>					
W	A	7	8	9	0 0 0 8 9 6 7
<b>III. Name of Facility</b>					
US Department of Energy - Hanford Facility					
<b>IV. Facility Location (Physical address not P.O. Box or Route Number)</b>					
<b>A. Street</b>					
825 Jadwin					
City or Town				State	ZIP Code
Richland				WA	99352
County Code (if known)		County Name			
0 0 5		Benton			
<b>B. Land Type</b>		<b>C. Geographic Location</b>		<b>D. Facility Existence Date</b>	
Latitude (degrees, mins, secs)		Longitude (degrees, mins, secs)		Month	Day
Year					
F		Refer to TOPO Map (Section XV.)		0	3
				0	2
				1	9 4 3
<b>V. Facility Mailing Address</b>					
<b>Street or P.O. Box</b>					
P.O. Box 550					
City or Town				State	ZIP Code
Richland				WA	99352

VI. Facility contact (Person to be contacted regarding waste activities at facility)																	
Name (last)						(first)											
Brockman						David											
Job Title						Phone Number (area code and number)											
Manager						(509) 376-7395											
Contact Address																	
Street or P.O. Box																	
P.O. Box 550																	
City or Town						State		ZIP Code									
Richland						WA		99352									
VII. Facility Operator Information																	
A. Name										Phone Number							
Department of Energy Owner/Operator CH2M HILL Plateau Remediation Company Co-Operator for 400 Area Waste Management Unit*										(509) 376-7395 (509) 376-0556*							
Street or P.O. Box																	
P.O. Box 550 P.O. Box 1600 *																	
City or Town						State		ZIP Code									
Richland						WA		99352									
B. Operator Type		F															
C. Does the name in VII.A reflect a proposed change in operator?								<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
If yes, provide the scheduled date for the change:								Month		Day			Year				
								1	0		0	1		2	0	0	8
D. Is the name listed in VII.A. also the owner? If yes, skip to Section VIII.C.										<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
VIII. Facility Owner Information																	
A. Name						Phone Number (area code and number)											
David A. Brockman, Operator/Facility-Property Owner						(509) 376-7395											
Street or P.O. Box																	
P.O. Box 550																	
City or Town						State		ZIP Code									
Richland						WA		99352									
B. Owner Type		F															
C. Does the name in VIII.A reflect a proposed change in owner?								<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
If yes, provide the scheduled date for the change:								Month		Day			Year				
IX. NAICS Codes (5/6 digit codes)																	
A. First						B. Second											
5	6	2	2	1		Waste Treatment & Disposal	9	2	4	1	1	0	Administration of Air & Water Resource & Solid Waste Management Programs				
C. Third						D. Fourth											
5	4	1	7	1		Research & Development in the Physical, Engineering, & Life Sciences											

X. Other Environmental Permits (see instructions)														
A. Permit Type			B. Permit Number										C. Description	
	E		A	I	R		0	6	-	1	0	0	7	WAC 246-247, Radiation Protection - Air Emissions
	E		A	I	R		1	0	-	4	1	2		WAC 246-247, Radiation Protection - Air Emissions
	E		U	S	T		4	5	1	1				WAC 173-216, State Waste Discharge Permit Program

**XI. Nature of Business (provide a brief description that includes both dangerous waste and non-dangerous waste areas and activities)**

The Fast Flux Test Facility (FFTF) was a 400-megawatt (thermal) liquid-metal cooled (sodium) research and test reactor located in the 400 Area of the Hanford Facility. The FFTF developed and tested advanced fuels and material for the Liquid Metal Fast Breeder Reactor program. The FFTF was constructed in the late 1970's and first went critical on February 9, 1980. FFTF operated successfully from 1982 to 1992. The Department of Energy (DOE) issued a shutdown order in December 1993, and since that time, the DOE has been de-fueling the reactor and deactivating systems, as they were no longer needed. Mixed waste stored in the 400 Area Waste Management unit can include elemental sodium (Na), sodium potassium (NaK) (D001, D003, WSC2) and sodium hydroxide and potassium hydroxide (D002); as well as debris (for example piping, equipment, and components) contaminated with Na or NaK, sodium hydroxide, or potassium hydroxide. The mixed waste stored in the 400 Area Waste Management unit is limited to wastes generated from the 400 Area. Mixed waste will be stored in containers (for example drums and boxes) until treatment capabilities are available.

**Greater-than 90-day Storage Areas:**

Fuel Storage Facility (Building 403)

The Fuel Storage Facility (FSF) is a one-level reinforced concrete substructure covered by a steel frame metal-sided high bay building. Building dimensions are 34 x 27 x 12 meters (112 x 90 x 40) high. The principal equipment in the FSF is a belowground cell containing a carbon steel storage vessel approximately 6.4 meters (21 feet) in diameter and 7.3 meters (24 feet) deep for storing up to 466 FFTF spent fuel assemblies in liquid sodium. Adjacent buildings and below-grade cells contain the natural draft heat exchanger used to cool the FSF pool. With the exception of two areas, which are radiation areas (cells 907 and 906); all accessible areas are Radioactive Material Areas. The process design capacity for the FSF is 1,000 gallons.

Interim Storage Area

The 400 Area Interim Storage Area (ISA) consists of 156 x 75 meters (513 x 247 feet) totally fenced area with perimeter lighting that has been designated for above ground dry cask storage of spent fuel. A concrete pad, which measures 27 x 37 meters (90 x 120 Feet), was used for cask storage. The process design capacity for the ISA is 19,000 gallons.

**EXAMPLE FOR COMPLETING ITEMS XII and XIII (shown in lines numbered X-1, X-2, and X-3 below):** A facility has two storage tanks that hold 1200 gallons and 400 gallons respectively. There is also treatment in tanks at 20 gallons/hr. Finally, a one-quarter acre area that is two meters deep will undergo *in situ vitrification*.

Section XII. Process Codes and Design Capacities								Section XIII. Other Process Codes							
Line Number	A. Process Codes (enter code)			B. Process Design Capacity		C. Process Total Number of Units	Line Number	A. Process Codes (enter code)			B. Process Design Capacity		C. Process Total Number of Units	D. Process Description	
				1. Amount	2. Unit of Measure (enter code)						1. Amount	2. Unit of Measure (enter code)			
X 1	S	0	2	1,600	G	002	X 1	T	0	4	700	C	001	In situ vitrification	
X 2	T	0	3	20	E	001									
X 3	T	0	4	700	C	001									
1	S	0	1	20,000	G	003	1								
2							2								
3							3								
4							4								
5							5								
6							6								
7							7								
8							8								
9							9								
1 0							1 0								
1 1							1 1								
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1 8							1 8								
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2 0							2 0								
2 1							2 1								
2 2							2 2								
2 3							2 3								
2 4							2 4								
2 5							2 5								



<p><b>XV. Map</b> Attach to this application a topographic map of the area extending to at least one (1) mile beyond property boundaries. The map must show the outline of the facility; the location of each of its existing and proposed intake and discharge structures; each of its dangerous waste treatment, storage, recycling, or disposal units; and each well where fluids are injected underground. Include all springs, rivers, and other surface water bodies in this map area, plus drinking water wells listed in public records or otherwise known to the applicant within ¼ mile of the facility property boundary. The instructions provide additional information on meeting these requirements.</p>
<p>Topographic map is located in the Ecology Library</p>
<p><b>XVI. Facility Drawing</b> All existing facilities must include a scale drawing of the facility (refer to Instructions for more detail).</p>
<p><b>XVII. Photographs</b> All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, recycling, and disposal areas; and sites of future storage, treatment, recycling, or disposal areas (refer to Instructions for more detail).</p>

<p><b>XVIII. Certifications</b></p>		
<p>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</p>		
<p><b>Operator</b> Name and Official Title (type or print) David A. Brockman, Manager U.S. Department of Energy Richland Operations Office</p>	<p><b>Signature</b> </p>	<p><b>Date Signed</b> 9/19/08</p>
<p><b>Co-Operator*</b> Name and Official Title (type or print) John G. Lehew, III President and Chief Executive Officer CH2M HILL Plateau Remediation Company</p>	<p><b>Signature</b> </p>	<p><b>Date Signed</b> 9/2/08</p>
<p><b>Co-Operator – Address and Telephone Number*</b> P.O. Box 1600 Richland, WA 99352 (509) 376-0556</p>		
<p><b>Facility-Property Owner</b> Name and Official Title (type or print) David A. Brockman, Manager U.S. Department of Energy Richland Operations Office</p>	<p><b>Signature</b> </p>	<p><b>Date Signed</b> 9/19/08</p>

**Comments**

400 Area Waste Management Unit

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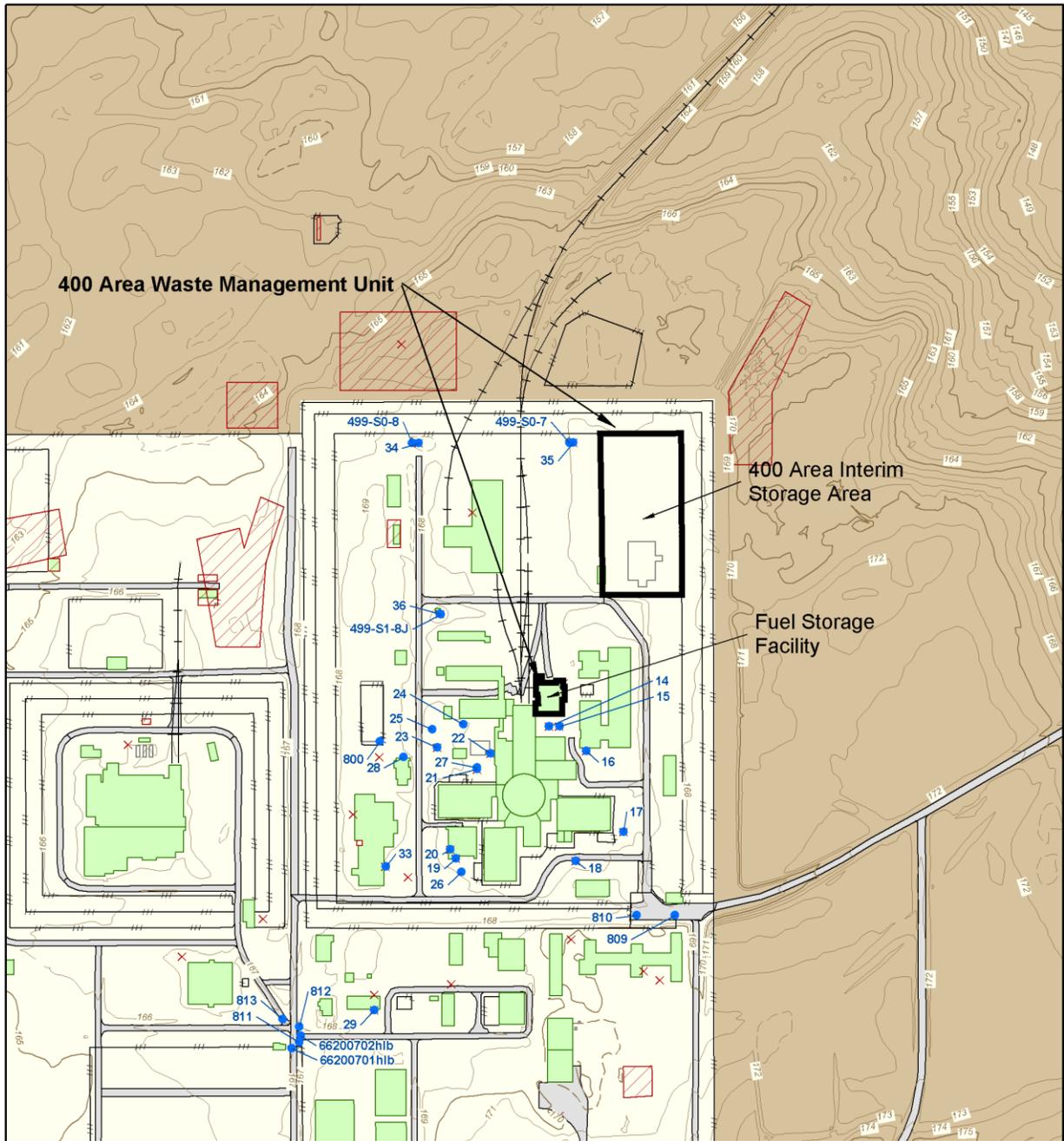
**Fuel Storage Facility (FSF)**  
Building 403

8-2006



**Interim Storage Area (ISA)**  
Building 4718

8-2006



## 400 Area Waste Management Unit

Prepared for:  
 US DEPARTMENT OF ENERGY  
 RICHLAND OPERATIONS OFFICE  
 Created and Published by:  
 Central Mapping Services  
 Fluor Hanford, Richland, WA  
 (509) 373-9076  
 Intended Use: REFERENCE ONLY  
 Topographic Data:  
 1996, Bechtel Hanford, Inc.

### Hanford Site



### Unit Location

- TSD Unit Boundary
- DOE Operating Areas
- Hanford Facility
- Injection and Withdrawal Wells
- Contours at 1 Meter Intervals
- Depression Contours
- SWMUs and Known Releases
- Linear SWMUs and Known Releases
- Spot SWMUs and Known Releases
- Buildings
- Structures
- Concrete
- Major Roads
- Service Roads
- Railroads
- Fences



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