

		WASHINGTON STATE DEPARTMENT OF <b>ECOLOGY</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>				Date: 0 9 2 2 2 0 0 8						
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				

<b>VI. Facility contact (Person to be contacted regarding waste activities at facility)</b>																
<b>Name (last)</b>						<b>(first)</b>										
Brockman						David										
<b>Job Title</b>						<b>Phone Number (area code and number)</b>										
Manager						(509) 376-7395										
<b>Contact Address</b>																
<b>Street or P.O. Box</b>																
P.O. Box 550																
<b>City or Town</b>						<b>State</b>		<b>ZIP Code</b>								
Richland						WA		99352								
<b>VII. Facility Operator Information</b>																
<b>A. Name</b>									<b>Phone Number</b>							
Department of Energy Owner/Operator CH2M HILL Plateau Remediation Company Co-Operator for LERF & 200 Area ETF*									(509) 376-7395 (509) 376-0556*							
<b>Street or P.O. Box</b>																
P.O. Box 550 P.O. Box 1600 *																
<b>City or Town</b>						<b>State</b>		<b>ZIP Code</b>								
Richland						WA		99352								
<b>B. Operator Type</b>		F														
<b>C. Does the name in VII.A reflect a proposed change in operator?</b>									<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
If yes, provide the scheduled date for the change:									<b>Month</b>		<b>Day</b>			<b>Year</b>		
									1 0		0 1			2 0 0 8		
<b>D. Is the name listed in VII.A. also the owner? If yes, skip to Section VIII.C.</b>									<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
<b>VIII. Facility Owner Information</b>																
<b>A. Name</b>									<b>Phone Number (area code and number)</b>							
David A. Brockman, Operator/Facility-Property Owner									(509) 376-7395							
<b>Street or P.O. Box</b>																
P.O. Box 550																
<b>City or Town</b>						<b>State</b>		<b>ZIP Code</b>								
Richland						WA		99352								
<b>B. Owner Type</b>		F														
<b>C. Does the name in VIII.A reflect a proposed change in owner?</b>									<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
If yes, provide the scheduled date for the change:									<b>Month</b>		<b>Day</b>			<b>Year</b>		
<b>IX. NAICS Codes (5/6 digit codes)</b>																
<b>A. First</b>						<b>B. Second</b>										
5 6 2 2 1						Waste Treatment & Disposal						9 2 4 1 1 0				
												Administration of Air & Water Resource & Solid Waste Management Programs				
<b>C. Third</b>						<b>D. Fourth</b>										
5 4 1 7 1						Research & Development in the Physical, Engineering, & Life Sciences										

<b>X. Other Environmental Permits (see instructions)</b>															
<b>A. Permit Type</b>			<b>B. Permit Number</b>											<b>C. Description</b>	
E			T	S	C	A	0	3	-	1	0	-	2	2	TSCA approval, 40 CFR 761
E			W	C	M	-1	2	7							40 CFR 761.61(c), TSCA risk-based approval 2003-10-22
E			N	O	C	-9	3	-	3						WAC 173-400, General Regulations for Air Pollution Sources/ WAC 173-460, Controls for New Sources of Toxic Air Pollutants
E			N	O	C	-9	6	N	W	-1	-	3	0	1	WAC 173-400, General Regulations for Air Pollution Sources/ WAC 173-460, Controls for New Sources of Toxic Air Pollutants
E			A	I	R	-0	4	-	1	0	1				WAC 246-247, Radiation Protection -- Air Emissions
U			S	T		4	5	0	0						WAC 173-216, State Waste Discharge Permit Program, Sitewide Permit for miscellaneous streams
U			S	T		4	5	1	1						WAC 173-216, State Waste Discharge Permit Program, Sitewide Permit for miscellaneous streams

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

Construction of the Liquid Effluent Retention Facility (LERF) began in 1990. Waste management operations began at LERF in April 1994. Construction of the 200 Area Effluent Treatment Facility (ETF) began in 1992. Waste management operations began at ETF in November of 1995.

The LERF and ETF comprise an aqueous waste treatment system located in the 200 East Area that provides storage and treatment for a variety of aqueous mixed waste. This aqueous waste includes process condensate from the 242-A Evaporator and other aqueous waste generated from onsite remediation and waste management activities.

The LERF consists of three lined surface impoundments, or basins. Aqueous waste from LERF is pumped to the ETF for treatment in a series of process units, or systems, that remove or destroy dangerous waste constituents. The treated effluent is discharged to a State-Approved Land Disposal Site (SALDS) north of the 200 West Area, under the authority of a Washington State Waste Discharge Permit (ST4500) and the Final Delisting (40 CFR 261, Appendix IX, Table 2)

Sludge that accumulates in the bottoms of ETF process tanks is removed periodically and placed into containers. The waste is solidified by decanting the supernate from the container and the remainder of the liquid is allowed to evaporate, or absorbents are added, as necessary, to address the residual liquid. The process design capacity for treatment of waste in containers (T04) is 18,927 liters per day.

**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	4	88,500,000	L	003	1	T	0	4	18,927	V	001	container treatment
2	T	0	2	88,500,000	V	003	2							
3	S	0	2	7,608,654	L	017	3							
4	T	0	1	817,646	V	017	4							
5	S	0	1	147,630	L	003	5							
6	T	0	4	18,927	V	001	6							
7							7							
8							8							
9							9							
1 0							1 0							
1 1							1 1							
1 2							1 2							
1 3							1 3							
1 4							1 4							
1 5							1 5							
1 6							1 6							
1 7							1 7							
1 8							1 8							
1 9							1 9							
2 0							2 0							
2 1							2 1							
2 2							2 2							
2 3							2 3							
2 4							2 4							
2 5							2 5							

**XIV. Description of Dangerous Wastes**

**Example for completing this section:** A facility will receive three non-listed wastes, then store and treat them on-site. Two wastes are corrosive only, with the facility receiving and storing the wastes in containers. There will be about 200 pounds per year of each of these two wastes, which will be neutralized in a tank. The other waste is corrosive and ignitable and will be neutralized then blended into hazardous waste fuel. There will be about 100 pounds per year of that waste, which will be received in bulk and put into tanks.

Line Number	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	D 0 0 2	400	P	S	0	1	T	0	1				
X 2	D 0 0 1	100	P	S	0	2	T	0	1				
X 3	D 0 0 2									Included with above			
	1 D 0 0 1	88,497,000	K	S	0	4	T	0	2				
	2 D 0 0 2		K	S	0	4	T	0	2				
	3 D 0 0 3		K	S	0	4	T	0	2				
	4 D 0 0 4		K	S	0	4	T	0	2				
	5 D 0 0 5		K	S	0	4	T	0	2				
	6 D 0 0 6		K	S	0	4	T	0	2				
	7 D 0 0 7		K	S	0	4	T	0	2				
	8 D 0 0 8		K	S	0	4	T	0	2				
	9 D 0 0 9		K	S	0	4	T	0	2				
1 0	D 0 1 0		K	S	0	4	T	0	2				
1 1	D 0 1 1		K	S	0	4	T	0	2				
1 2	D 0 1 8		K	S	0	4	T	0	2				
1 3	D 0 1 9		K	S	0	4	T	0	2				
1 4	D 0 2 2		K	S	0	4	T	0	2				
1 5	D 0 2 8		K	S	0	4	T	0	2				
1 6	D 0 2 9		K	S	0	4	T	0	2				
1 7	D 0 3 0		K	S	0	4	T	0	2				
1 8	D 0 3 3		K	S	0	4	T	0	2				
1 9	D 0 3 4		K	S	0	4	T	0	2				
2 0	D 0 3 5		K	S	0	4	T	0	2				
2 1	D 0 3 6		K	S	0	4	T	0	2				
2 2	D 0 3 8		K	S	0	4	T	0	2				
2 3	D 0 3 9		K	S	0	4	T	0	2				
2 4	D 0 4 0		K	S	0	4	T	0	2				
2 5	D 0 4 1		K	S	0	4	T	0	2				

<b>EPA/State ID Number</b>	W	A	7	8	9	0	0	0	8	9	6	7
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**Continuation of Section XIV. Description of Dangerous Waste**

Line Number	A. Dangerous Waste No. (enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Process												
	(1) Process Codes (enter)						(2) Process Description [If a code is not entered in D (1)]												
2 6	D	0	4	3		K	S	0	4	T	0	2							
2 7	F	0	0	1		K	S	0	4	T	0	2							
2 8	F	0	0	2		K	S	0	4	T	0	2							
2 9	F	0	0	3		K	S	0	4	T	0	2							
3 0	F	0	0	4		K	S	0	4	T	0	2							
3 1	F	0	0	5		K	S	0	4	T	0	2							
3 2	F	0	3	9		K	S	0	4	T	0	2							
3 3	W	T	0	1		K	S	0	4	T	0	2							
3 4	W	T	0	2		K	S	0	4	T	0	2							
3 5	D	0	0	1	298,434,296	K	T	0	1										
3 6	D	0	0	2		K	T	0	1										
3 7	D	0	0	3		K	T	0	1										
3 8	D	0	0	4		K	T	0	1										
3 9	D	0	0	5		K	T	0	1										
4 0	D	0	0	6		K	T	0	1										
4 1	D	0	0	7		K	T	0	1										
4 2	D	0	0	8		K	T	0	1										
4 3	D	0	0	9		K	T	0	1										
4 4	D	0	1	0		K	T	0	1										
4 5	D	0	1	1		K	T	0	1										
4 6	D	0	1	8		K	T	0	1										
4 7	D	0	1	9		K	T	0	1										
4 8	D	0	2	2		K	T	0	1										
4 9	D	0	2	8		K	T	0	1										
5 0	D	0	2	9		K	T	0	1										
5 1	D	0	3	0		K	T	0	1										
5 2	D	0	3	3		K	T	0	1										
5 3	D	0	3	4		K	T	0	1										
5 4	D	0	3	5		K	T	0	1										
5 5	D	0	3	6		K	T	0	1										
5 6	D	0	3	8		K	T	0	1										
5 7	D	0	3	9		K	T	0	1										
5 8	D	0	4	0		K	T	0	1										
5 9	D	0	4	1		K	T	0	1										

<b>EPA/State ID Number</b>	W	A	7	8	9	0	0	0	8	9	6	7
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**Continuation of Section XIV. Description of Dangerous Waste**

Line Number	A. Dangerous Waste No. (enter code)			B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Process								
						(1) Process Codes (enter)				(2) Process Description [If a code is not entered in D (1)]				
6 0	D	0	4 3		K	T	0	1						
6 1	F	0	0 1		K	T	0	1						
6 2	F	0	0 2		K	T	0	1						
6 3	F	0	0 3		K	T	0	1						
6 4	F	0	0 4		K	T	0	1						
6 5	F	0	0 5		K	T	0	1						
6 6	F	0	3 9		K	T	0	1						
6 7	W	T	0 1		K	T	0	1						
6 8	W	T	0 2		K	T	0	1						
6 9	D	0	0 1	30,433,326	K	S	0	2						
7 0	D	0	0 2		K	S	0	2						
7 1	D	0	0 3		K	S	0	2						
7 2	D	0	0 4		K	S	0	2						
7 3	D	0	0 5		K	S	0	2						
7 4	D	0	0 6		K	S	0	2						
7 5	D	0	0 7		K	S	0	2						
7 6	D	0	0 8		K	S	0	2						
7 7	D	0	0 9		K	S	0	2						
7 8	D	0	1 0		K	S	0	2						
7 9	D	0	1 1		K	S	0	2						
8 0	D	0	1 8		K	S	0	2						
8 1	D	0	1 9		K	S	0	2						
8 2	D	0	2 2		K	S	0	2						
8 3	D	0	2 8		K	S	0	2						
8 4	D	0	2 9		K	S	0	2						
8 5	D	0	3 0		K	S	0	2						
8 6	D	0	3 3		K	S	0	2						
8 7	D	0	3 4		K	S	0	2						
8 8	D	0	3 5		K	S	0	2						
8 9	D	0	3 6		K	S	0	2						
9 0	D	0	3 8		K	S	0	2						
9 1	D	0	3 9		K	S	0	2						
9 2	D	0	4 0		K	S	0	2						
9 3	D	0	4 1		K	S	0	2						







**XV. Map**  
 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.

Topographic map is located in the Ecology Library

**XVI. Facility Drawing**  
 All existing facilities must include a scale drawing of the facility (refer to Instructions for more detail).

**XVII. Photographs**  
 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).

**XVIII. Certifications**  
 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.

<b>Operator</b> Name and Official Title (type or print) David A. Brockman, Manager U.S. Department of Energy Richland Operations Office	<b>Signature</b> 	<b>Date Signed</b> 9/19/08
<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	<b>Signature</b> 	<b>Date Signed</b> 9/2/08
<b>Co-Operator – Address and Telephone Number*</b> P.O. Box 1600 Richland, WA 99352 (509) 376-0556		
<b>Facility-Property Owner</b> Name and Official Title (type or print) David A. Brockman, Manager U.S. Department of Energy Richland Operations Office	<b>Signature</b> 	<b>Date Signed</b> 9/19/08

**Comments**

In Section VII. Facility Operator Information, there is no change to DOE as the Facility Owner/Operator; only a change in Co-Operator\*. The change in Co-Operator\* will be effective October 1, 2008.

DRAFT

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## Liquid Effluent Retention Facility

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**Typical Basin**

Photo Taken 1992

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## 200 Area Effluent Treatment Facility

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Photo Taken 2005

