

		WASHINGTON STATE DEPARTMENT OF ECOLOGY	Dangerous Waste Permit Application Part A Form
Date Received		Reviewed by: <i>CAR</i>	Date: 0 9 2 2 2 0 0 8
Month	Day	Year	Approved by: <i>Greta P. Davis</i>
0 9	1 9	2 0 0 8	Date: 0 9 2 2 2 0 0 8
I. This form is submitted to: (place an "X" in the appropriate box)			
<input type="checkbox"/>	Request modification to a final status permit (commonly called a "Part B" permit)		
<input checked="" 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:			
II. EPA/State ID Number			
W	A	7 8 9 0 0 0 8 9 6 7	
III. Name of Facility			
US Department of Energy - Hanford Facility			
IV. Facility Location (Physical address not P.O. Box or Route Number)			
A. Street			
825 Jadwin			
City or Town		State	ZIP Code
Richland		WA	99352
County Code (if known)	County Name		
0 0 5	Benton		
B. Land Type	C. Geographic Location		D. Facility Existence Date
	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
V. Facility Mailing Address			
Street or P.O. Box			
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 Hexone Storage & Treatment Facility*									(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 Co-Operator* change					
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		9	2	4	1	1	0
Waste Treatment & Disposal						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	

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

The Hexone Storage and Treatment Facility is located in the southeast corner of the 200 West Area of the Hanford Facility. The Hexone Storage and Treatment Facility consisted of two 24,000 gallon (91,000 liter) below grade carbon steel tanks [276-S-141 (S-141) and 276-S-142 (S-142)], a distillation system, and railroad tank cars. The Hexone Storage and Treatment Facility received liquid mixed waste from the Reduction/Oxidation (REDOX) Plant and possibly the Hot Semiworks Plant. The Hexone Storage and Treatment Facility was used from 1951 through 1967 to store reagent-grade methyl isobutyl ketone (hexone) for makeup as a solvent for the REDOX Plant. After 1967, the Hexone Storage and Treatment Facility contained distilled hexone, part or all of which had been used in the REDOX Plant.

The S-142 tank also contained normal paraffin hydrocarbon and tributyl phosphate from a one-time campaign to separate americium, curium, and promethium from Shippingport reactor blanket fuel in 1966. Approximately 200 gallons (760 liters) of water were added to the S-141 tank in 1988. The S-142 tank received approximately 1,300 gallons (5,000 liters) of water in 1967, 500 gallons (1,900 liters) in the mid-1970's, and 200 gallons (760 liters) in the mid-1980's. The combined storage design capacities of the tanks (S-141 and S-142) are 48,000 gallons (182,000 liters) (S02). The treatment design capacity of the distillation system was 3,000 gallons (11,400 liters) of waste per day (T04). The storage design capacity of the railroad tank cars was 40,000 gallons (152,000 liters) (S01).

The mixed waste was pumped from the S-141 and S-142 tanks through a distillation system to decrease the radioactivity of the waste. The distilled waste was sent to temporary storage in railroad tank cars located within the Hexone Storage and Treatment Facility, until completion of transfers to an offsite incinerator in June of 1992. Three distillation vessels containing process residue have been sampled and are stored elsewhere on the Hanford Site as mixed waste. The S-141 and S-142 tanks currently each contain up to 5 to 30 gallons (19 to 114 liters) of liquid mixed waste containing 93% normal paraffin hydrocarbon and 7% hexone and up to 250 gallons (950 liters) of phosphate tar. The phosphate tar will be stored at the Hanford Site as mixed waste. The railroad tank cars have been emptied, cleaned, and removed. The Hexone Storage and Treatment Facility two tanks are being closed in conjunction with the 200-IS-1 Operable Unit. The tanks have been stabilized by filling them with grout and deactivating the purge system.

The S-141 tank was used to store waste hexone (F003) that was used as a solvent in the REDOX Plant. The mixed waste was considered ignitable (D001) and a toxic state-only waste (WT02). The estimated annual quantity of waste that was treated and stored in the S-141 tank was approximately 20,000 gallons (76,000 liters).

The S-142 tank also was used to store hexone waste. In addition, the S-142 tank also stored normal paraffin hydrocarbon and tributyl phosphate waste. This waste resulted from a one-time campaign to separate americium, curium, and promethium from Shippingport reactor blanket fuel in 1966. The estimated annual quantity of waste that was treated and stored in the S-142 tank was approximately 16,000 gallons (61,000 liters).

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.	2.	3.	1. Amount	2. Unit of Measure (enter code)			1.	2.	3.	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 1	S	0	2	48,000	G	002	1							
1 2	T	0	4	3,000	U	001	2							
1 3	S	0	1	40,000	G	002	3							
1 4							4							
1 5							5							
1 6							6							
1 7							7							
1 8							8							
1 9							9							
2 0							1 0							
2 1							1 1							
2 2							1 2							
2 3							1 3							
2 4							1 4							
2 5							1 5							
							1 6							
							1 7							
							1 8							
							1 9							
							2 0							
							2 1							
							2 2							
							2 3							
							2 4							
							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	245,400	P	S	0	2	T	0	4	S	0	1	
2	D	0	1	8		P	S	0	2	T	0	4	S	0	1	
3	D	0	1	9		P	S	0	2	T	0	4	S	0	1	
4	D	0	2	3		P	S	0	2	T	0	4	S	0	1	
5	D	0	2	4		P	S	0	2	T	0	4	S	0	1	
6	D	0	2	5		P	S	0	2	T	0	4	S	0	1	
7	D	0	2	7		P	S	0	2	T	0	4	S	0	1	
8	D	0	2	8		P	S	0	2	T	0	4	S	0	1	
9	D	0	2	9		P	S	0	2	T	0	4	S	0	1	
10	D		3	0		P	S	0	2	T	0	4	S	0	1	
11	D	0	3	2		P	S	0	2	T	0	4	S	0	1	
12	D	0	3	3		P	S	0	2	T	0	4	S	0	1	
13	D	0	3	4		P	S	0	2	T	0	4	S	0	1	
14	D	0	3	6		P	S	0	2	T	0	4	S	0	1	
15	D	0	3	7		P	S	0	2	T	0	4	S	0	1	
16	D	0	3	9		P	S	0	2	T	0	4	S	0	1	
17	D	0	4	0		P	S	0	2	T	0	4	S	0	1	
18	D	0	4	1		P	S	0	2	T	0	4	S	0	1	
19	D	0	4	2		P	S	0	2	T	0	4	S	0	1	
20	D	0	4	3		P	S	0	2	T	0	4	S	0	1	
21	F	0	0	3		P	S	0	2	T	0	4	S	0	1	
22	W	T	0	2		P	S	0	2	T	0	4	S	0	1	
23																
24																
25																

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.

Operator Name and Official Title (type or print) David A. Brockman, Manager U.S. Department of Energy Richland Operations Office	Signature 	Date Signed 9/19/08
Co-Operator* Name and Official Title (type or print) John G. Lehew, III President and Chief Executive Officer CH2M HILL Plateau Remediation Company	Signature 	Date Signed 9/2/08
Co-Operator – Address and Telephone Number* P.O. Box 1600 Richland, WA 99352 (509) 376-0556		
Facility-Property Owner Name and Official Title (type or print) David A. Brockman, Manager U.S. Department of Energy Richland Operations Office	Signature 	Date Signed 9/19/08

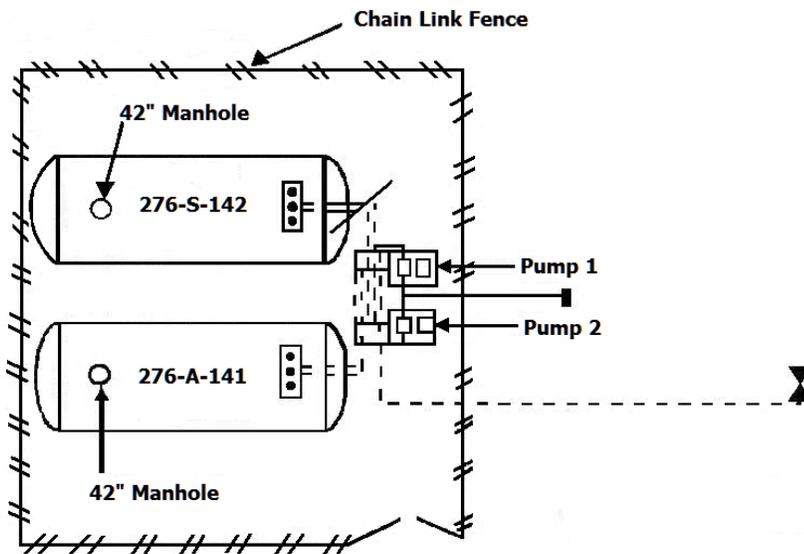
Comments

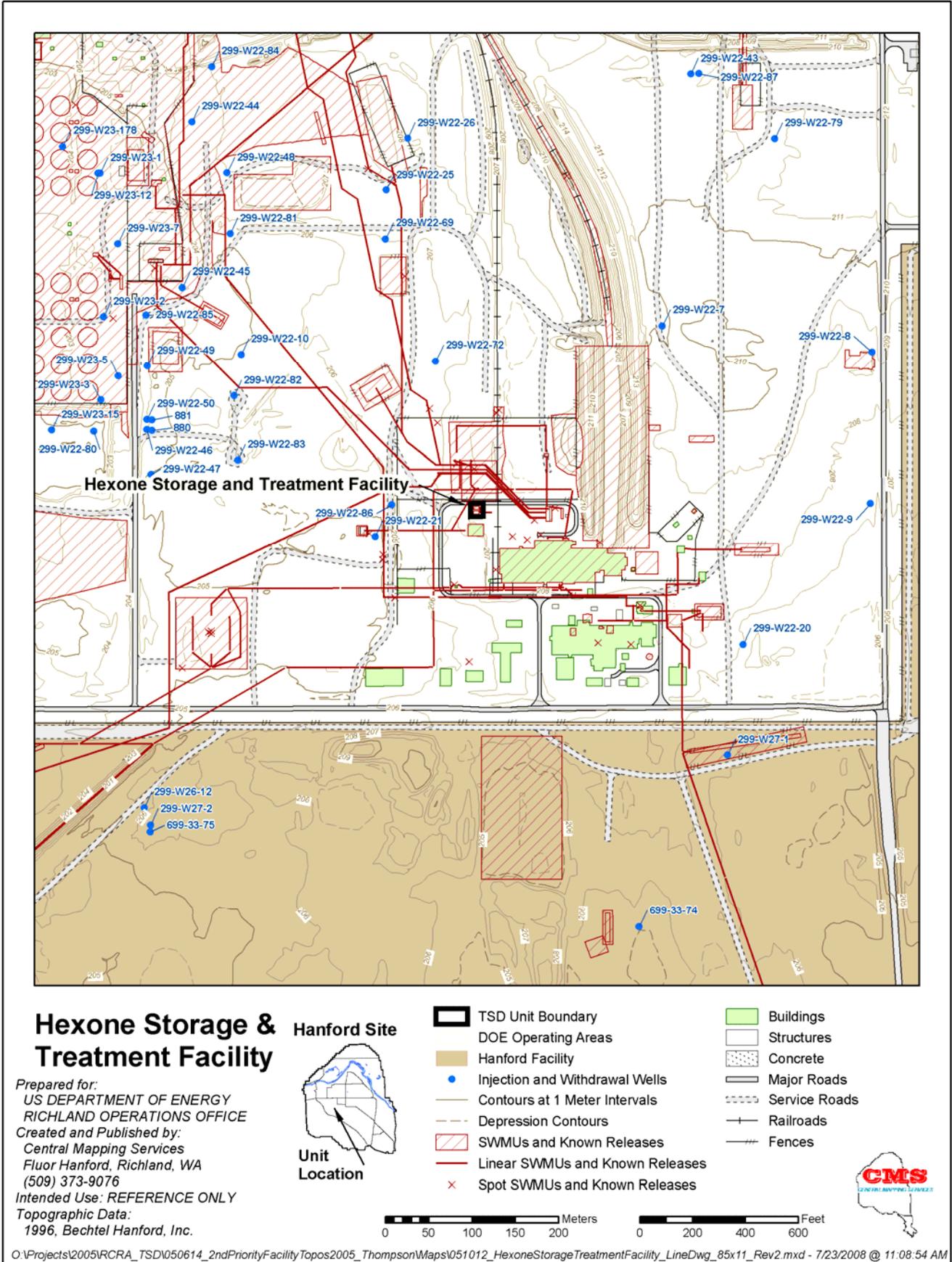
In Section VII. Facility Operator Information, there is no change to DOE as the Facility Owner/Operator; only a change in Co-Operator*. The change in Co-Operator* will be effective October 1, 2008.

Hexone Storage Tanks (276-S-141 & 276-S-142)



----- Underground Pipe
———— Above Ground Pipe





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