WASHINGTON STATE DEPARTMENT OF ECOLOGY

Dangerous Waste Permit Application Part A Form

Date Received								Reviewed by: Jean Vanni for GPD	Date: 09222008
Month	Day		Year					Approved by: Greta P. Davis	Date: 09222008
0	9	1	9	2	0	0	8		

I. This form is submitted to: (place an "X" in the appropriate box)

☐	**Request modification to a final status permit (commonly called a "Part B" permit)**
☒	**Request a change under interim status**
☐	**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).**
☐	**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
005	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.)		03 02 1943

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 216-B-3 Main Pond*	(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? ☐ Yes ☒ No Co-Operator* change

If yes, provide the scheduled date for the change:

Month	Day	Year
10	01	2008

D. Is the name listed in VII.A. also the owner? If yes, skip to Section VIII.C. ☐ Yes ☒ 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? ☐ Yes ☒ 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

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

The 216-B-3 Main Pond (Main Pond) was used from April 1945 to May 1994. The 216-B-3 Pond covers an area of 14 hectares (35 acres) to a depth of 0.6 to 2.4 meters (2 to 8 feet). The 216-B-3 Pond received effluent initially from the 216-B-3-2 Ditch from B Plant and later from the 216-B-3-3 Ditch, which was excavated in 1970 to replace the 216-B-3-2 Ditch.

The 216-B-3-3 Ditch was approximately 1,128 meters (3,700 feet) long, 9.1 meters (30 feet) wide at ground level, 0.9 meters(3 feet) wide at the bottom, and 1.2 to 2.4 meters (4 to 8 feet) deep. The 216-B-3-3 Ditch received effluents from B Plant, 241-BY Tank Farm, 244-CR Vault, and plutonium-uranium extraction (PUREX) Plant. Most of the 216-B-3 Main Pond dangerous waste came from the 216-A-29 Ditch, which drained the PUREX chemical sewer. The 216-A-29 Ditch discharged into the 216-B-3-3 Ditch approximately 305 meters (1,000 feet) west of the 216-B-3 Pond. The 216-A-29 Ditch was shut down and interim stabilized in July 1991.

The Main Pond received wastewater (primarily process and cooling water) from the PUREX Plant, the B Plant Complex, the 242-A Evaporator, and other 200 East Area units. The Main Pond received dangerous waste from corrosive and toxic dangerous waste resulting from the regeneration of demineralizer columns and off-spec make-ups of essential chemicals used in the process at the PUREX Plant (D84), and spills of dangerous or mixed waste at the PUREX Plant. Backwash from the regeneration of the demineralizer columns frequently was corrosive (D002) and chemicals used in the aqueous makeup area at PUREX were occasionally discharged and included nitric acid, sulfuric acid, sodium hydroxide, and potassium hydroxide (D002/WT02). Treatment of the waste from regeneration of the demineralizer columns occurred by the successive discharge of acidic and caustic waste, which served to neutralize the corrosivity of the waste. Residual corrosivity was neutralized by the calcareous nature of the Main Pond soil (T02). Releases from the PUREX Plant included hydrazine (U133), cadmium nitrate (WT01/D006), and ammonium fluoride/ammonium nitrate (WT01). Since 1984, administrative and engineering barriers were put in place at the PUREX Plant to prevent dangerous waste from being discharged into the Main Pond.

The process design capacities given for waste process codes T02 and D83 [3,180,000, liters (840,000 gallons) per day] represent the Main Pond's proportional share (based on percolation capacity) of the process design capacity of the entire B Pond System (which includes the 216-B-3 Expansion Ponds, a separate dangerous waste treatment and disposal unit). At the peak of operations, approximately 83,280,000 liters (22,000,000 gallons) per day of liquid were discharged to the entire 216-B-3 Pond System.

The quantity of waste listed for D002/WT02 is an estimated annual quantity based on the Main Pond's proportional share (based on percolation capacity) of the amount of corrosive and toxic waste received by the entire 216-B-3 Pond System (which includes the 216-B-3 Expansion Ponds, a separate dangerous waste treatment and disposal unit). The quantities of waste listed for U133 and WT01/D006 represent the Main Pond's proportional share (based on percolation capacity) of the total recorded amount of hydrazine, cadmium, and ammonium fluoride/ammonium nitrate received by the entire 216-B-3 Pond System from the time the PUREX Plant resumed operations in 1983 until the last known chemical discharge occurred in 1987.

The quantities of waste listed for U133 and WT01/D006 include the water in which the chemicals were discharged. Water made up most of the weight of these discharges.

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	T	0	2	840,000,	U	001		1							
	2	D	8	3	840,000	U	001		2							
	3								3							
	4								4							
	5								5							
	6								6							
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	9								9							
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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.				B. Estimated Annual Quantity of Waste	C. Unit of Measure	D. Processes									
							(1) Process Codes									(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	2	3,500,000	P	T	0	2	D	8	3				
2	W	T	0	2	77,000	P	T	0	2	D	8	3				
3	U	1	3	3	77,000	P	T	0	2	D	8	3				
4	W	T	0	1	19,000	P	T	0	2	D	8	3				
5	D	0	0	6	169,000	P	T	0	2	D	8	3				
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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

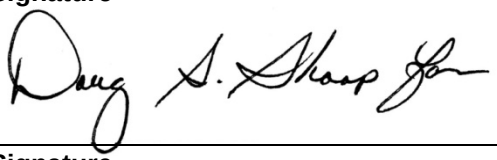
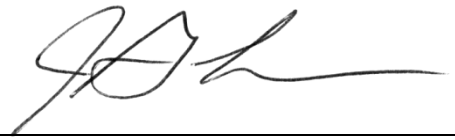
All existing facilities must include a scale drawing of the facility (refer to Instructions for more detail).

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).

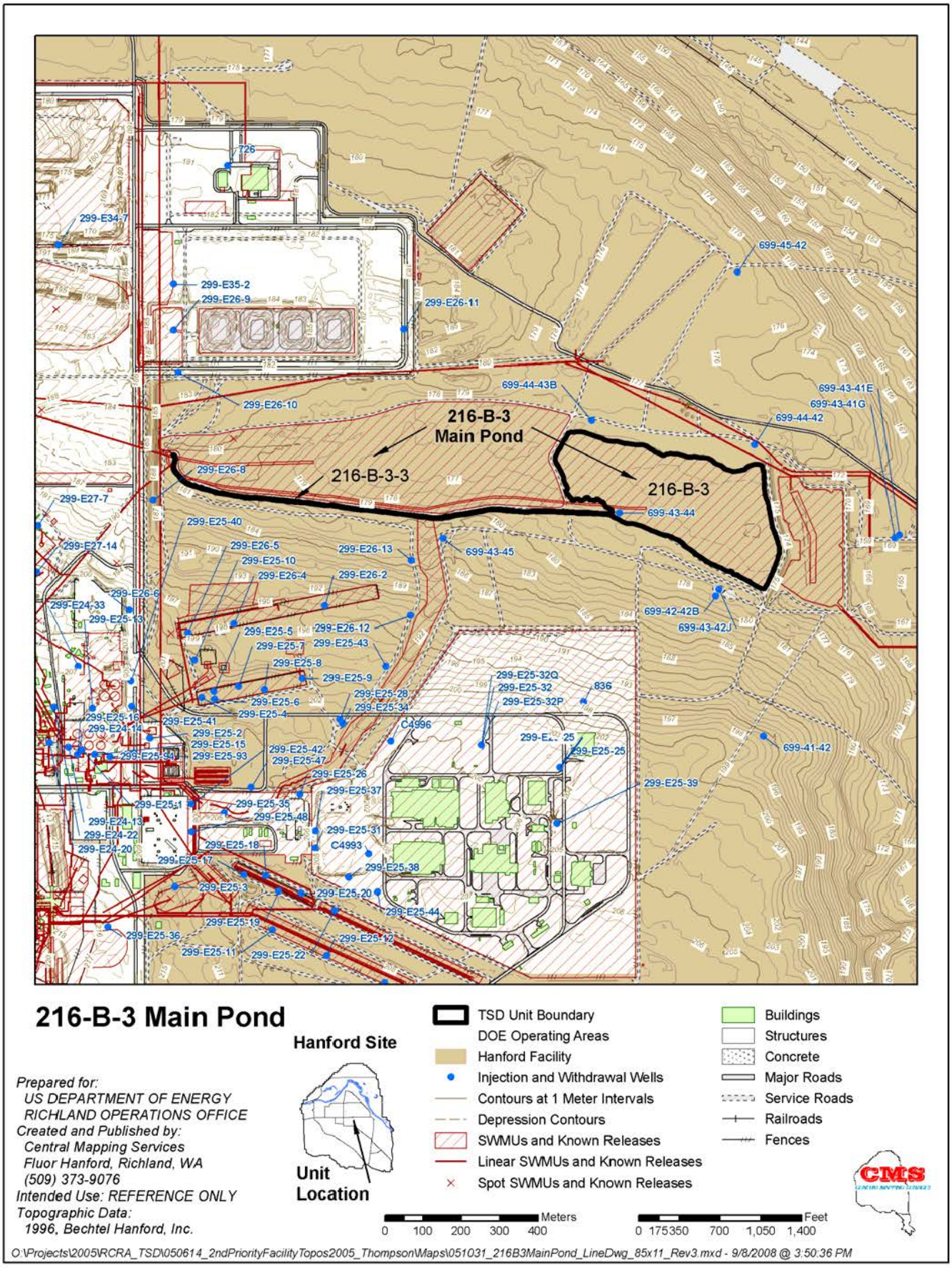
XVIII. Certifications

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.

216-B-3 Main Pond


216-B-3 Main Pond
216-B-3-3
216-B-3
726
299-E34-7
299-E35-2
299-E26-9
299-E26-11
299-E26-10
699-45-42
699-44-43B
699-43-41E
699-43-41G
699-44-42
299-E26-8
299-E27-7
699-43-44
299-E25-40
299-E27-14
299-E26-5
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699-43-42J
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299-E25-36
299-E25-12
299-E25-11
299-E25-22
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
Hanford Site
Unit Location
Meters
0 100 200 300 400
Feet
0 175350 700 1,050 1,400
CMS
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.
O:\Projects\2005\RCRA_TSD\050614_2ndPriorityFacilityTopos2005_Thompson\Maps\051031_216B3MainPond_LineDwg_85x11_Rev3.mxd - 9/8/2008 @ 3:50:36 PM

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