WASHINGTON STATE DEPARTMENT OF ECOLOGY

Dangerous Waste Permit Application Part A Form

Date Received	Reviewed by: GPA for Jean Vanni	Date: 09222008
Month Day Year	Approved by: Greta P. Davis	Date: 09222008
09192008		

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

WA7890008967

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 Latitude (degrees, mins, secs)	Longitude (degrees, mins, secs)	D. Facility Existence Date Month Day Year
F	Refer to TOPO Map (Section XV.)		03 22 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**	
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 1706-KE Waste Treatment System*	(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	
562211	Waste Treatment & Disposal	924110	Administration of Air & Water Resource & Solid Waste Management Programs
C. Third		**D. Fourth**	
541713	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)

S02, T04

The 1706-KE Waste Treatment System was designed and installed to begin waste management operations in July 1986. The unit was designed and installed to treat mixed waste generated in the laboratories of the 1706-KE Building. The majority of the waste was expected to be acidic or caustic solutions (D002, characteristic, corrosive, dangerous waste). The 1706-KE Waste Treatment System consisted of a 2,082-liter (550-gallon) waste accumulation tank, a 0.14-cubic meter (5-cubic foot) mixed-bed resin ion exchange column, an 114-liter (30-gallon) evaporator unit, and a 363-liter (96-gallon) condensate collection tank.

Waste generated in the 1706-KE Building was transferred from the waste accumulation tank to the ion exchange column and then continuously recirculated to remove the ionic constituents from the waste stream. The waste was transferred to the evaporator unit. The evaporator unit heated and boiled the liquid waste to steam. The steam condensed and collected in the 363-liter (96-gallon) condensate collection tank with the exhaust from the evaporation unit being passed through a HEPA filter prior to discharge.

Operation of this unit was ceased shortly after initial startup due to the unanticipated anomalies experienced in the operating system. The maximum process design capacities if the unit had been in operation for tank storage (S02) is 2,445 liters (646 gallons) and for tank treatment-other (T04) is 5,678 liters (1,500 gallons).

The 1706-KE WTS has not been operated since 1987. All waste, with the possible exception of a heel in the waste accumulation tank, was removed in March 1994. Closure of the 1706-KE Waste Treatment System will be integrated with the CERCLA Remedial Action for the 100 Area Remaining Sites Record of Decision. Closure plan documentation shall be provided to Ecology through integration with CERCLA documentation.

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	2	2,445	L	004		1							
	2	T	0	4	5,678	V	004		2							
	3								3							
	4								4							
	5								5							
	6								6							
	7								7							
	8							1	8							
	9							1	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 2	6,804	K	S 0 2 T 0 4	
2					
3					
4					
5					
6					
7					
8					
9					
10					
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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

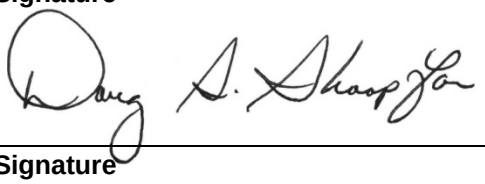
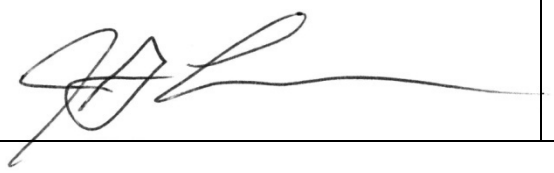
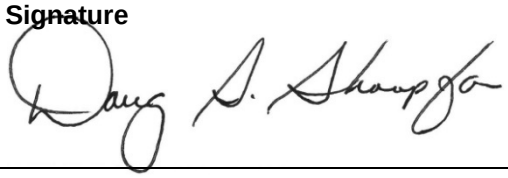
All existing facilities must include a scale drawing of the facility (refer to Instructions for more detail).

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

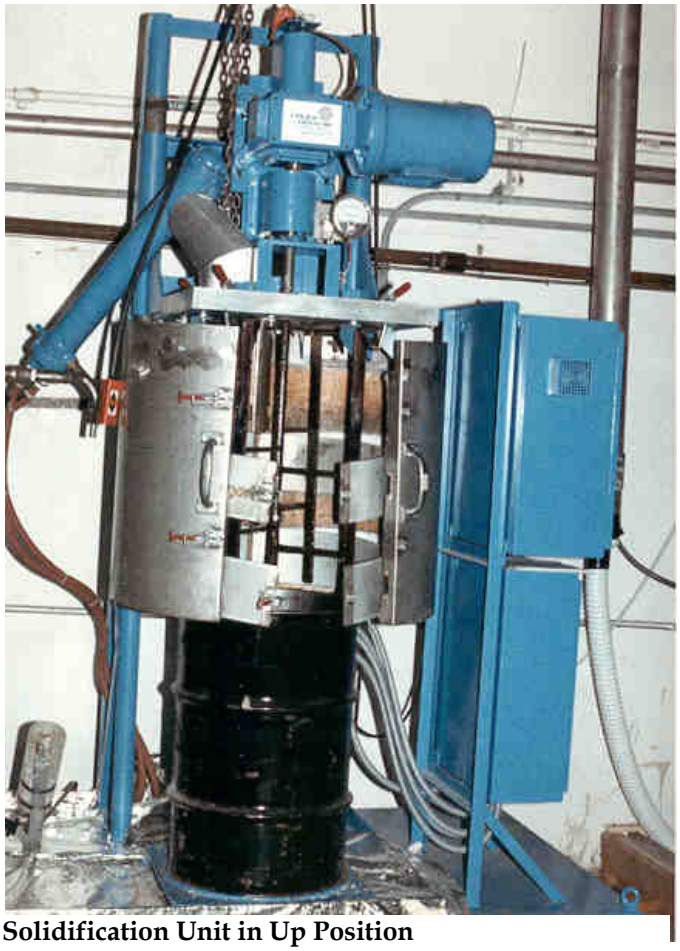
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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.

1706-KE Waste Treatment System



Solidification Unit in Up Position
132285-6CN (Photo Taken 1986)

Solidification Unit in Down Position Evaporating Waste
8700734-8CN Photo Taken 1987

Solidification Unit

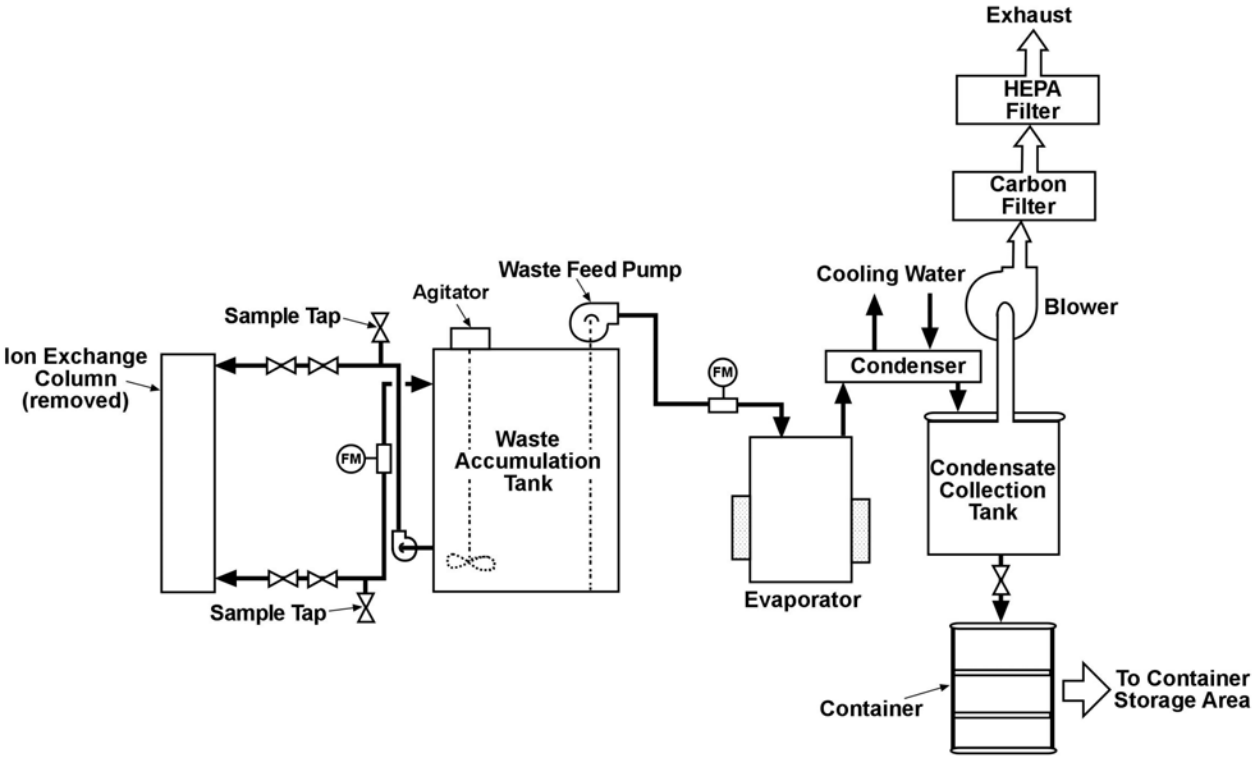
Ion Exchange Column & Waste Accumulation Tank
8700734-1CN Photo Taken 1987

Note: Ion Exchange Column has been removed since photograph was taken

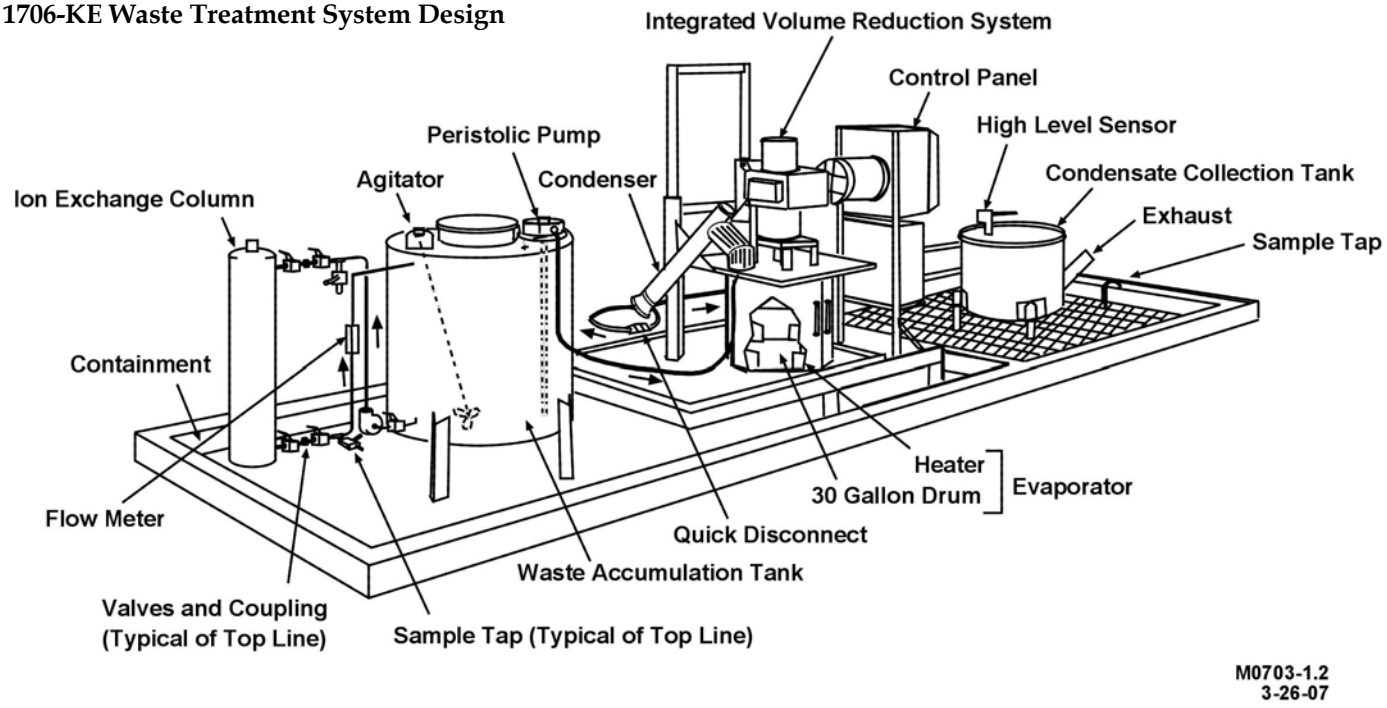
1706-KE Waste Treatment System

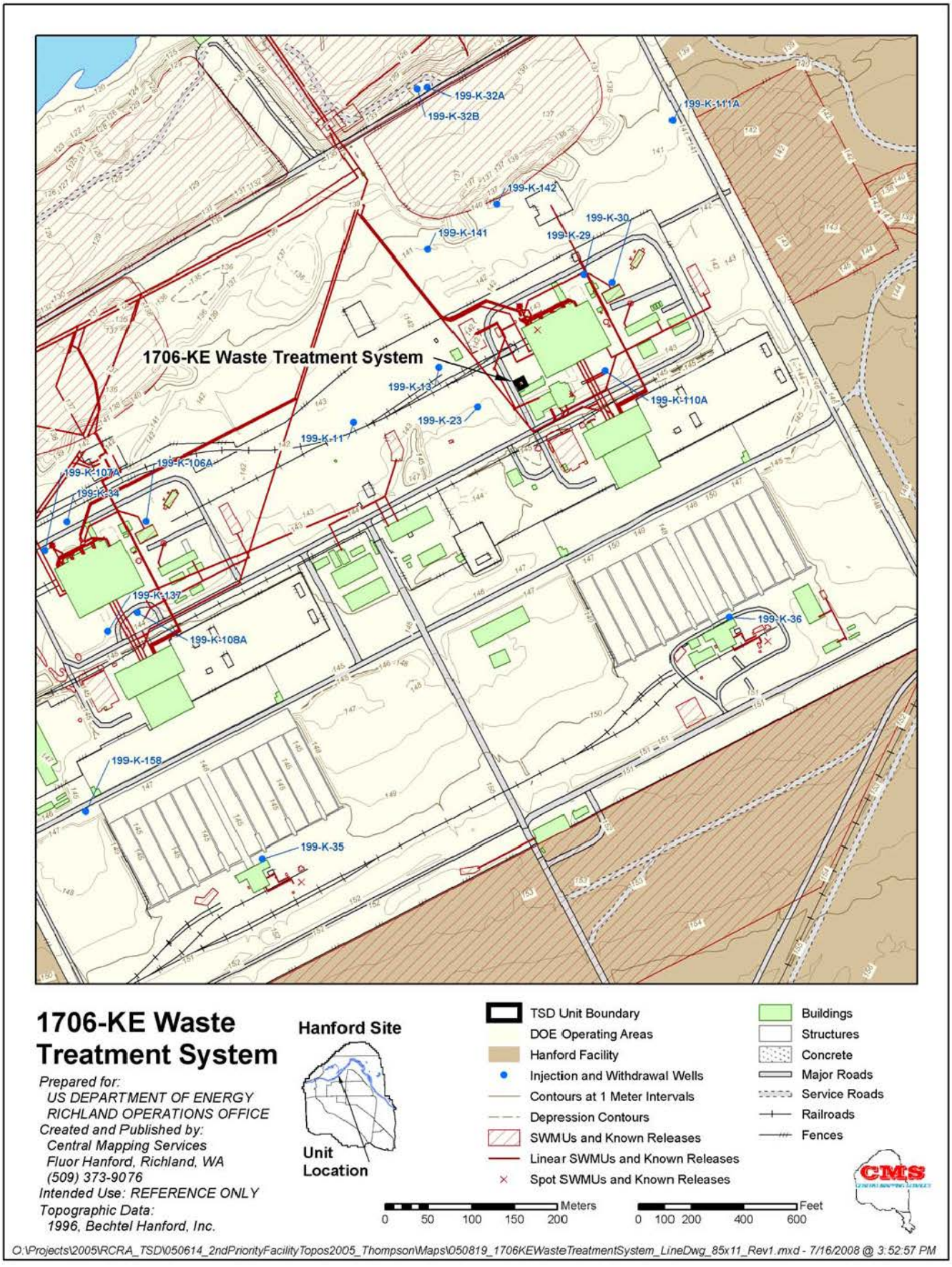
Waste Storage Tank

Condensate Tank



1706-KE Waste Treatment System Design




199-K-32A
199-K-32B
199-K-111A
199-K-142
199-K-141
199-K-30
199-K-29
1706-KE Waste Treatment System
199-K-13
199-K-110A
199-K-23
199-K-11
199-K-106A
199-K-107A
199-K-34
199-K-137
199-K-108A
199-K-36
199-K-158
199-K-35
1706-KE Waste Treatment System
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
Meters
0 50 100 150 200
Feet
0 100 200 400 600
CMS
O:\Projects\2005\RCRA_TSD\050614_2ndPriorityFacilityTopos2005_ThompsonMaps\050819_1706KEWasteTreatmentSystem_LineDwg_85x11_Rev1.mxd - 7/16/2008 @ 3:52:57 PM

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