WCH-374
Rev. 0

River Corridor
Closure Contract

300 Area D4 Project
Fiscal Year 2009
Building Completion Report

January 2010

For Public Release

Washington Closure Hanford

Prepared for the U.S. Department of Energy, Richland Operations Office
Office of Assistant Manager for River Corridor

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METRIC CONVERSION CHART

Into Metric Units			Out of Metric Units		
If You Know	*Multiply By*	*To Get*	*If You Know*	*Multiply By*	*To Get*
Length			**Length**		
inches	25.4	millimeters	millimeters	0.039	inches
inches	2.54	centimeters	centimeters	0.394	inches
feet	0.305	meters	meters	3.281	feet
yards	0.914	meters	meters	1.094	yards
miles	1.609	kilometers	kilometers	0.621	miles
Area			**Area**		
Sq. inches	6.452	sq. centimeters	sq. centimeters	0.155	sq. inches
sq. feet	0.093	sq. meters	sq. meters	10.76	sq. feet
sq. yards	0.836	sq. meters	sq. meters	1.196	sq. yards
sq. miles	2.6	sq. kilometers	sq. kilometers	0.4	sq. miles
acres	0.405	hectares	hectares	2.47	acres
Mass (weight)			**Mass (weight)**		
ounces	28.35	grams	grams	0.035	ounces
pounds	0.454	kilograms	kilograms	2.205	pounds
Ton	0.907	metric ton	metric ton	1.102	ton
Volume			**Volume**		
teaspoons	5	milliliters	milliliters	0.033	fluid ounces
tablespoons	15	milliliters	liters	2.1	pints
fluid ounces	30	milliliters	liters	1.057	quarts
cups	0.24	liters	liters	0.264	gallons
pints	0.47	liters	cubic meters	35.315	cubic feet
quarts	0.95	liters	cubic meters	1.308	cubic yards
gallons	3.8	liters			
cubic feet	0.028	cubic meters			
cubic yards	0.765	cubic meters			
Temperature			**Temperature**		
Fahrenheit	subtract 32, then multiply by 5/9	Celsius	Celsius	multiply by 9/5, then add 32	Fahrenheit
Radioactivity			**Radioactivity**		
picocuries	37	millibecquerel	millibecquerels	0.027	picocuries

1.0 SCOPE

This report summarizes the deactivation, decontamination, decommissioning, and demolition (D4) activities of seven facilities in the 300 Area of the Hanford Site in fiscal year (FY) 2009. These facilities include:

1. 321 Complex (321, 321B, 321C, 321D)
2. 323 Building (Formerly 321A)
3. 332 Building
4. 335 Building
5. 337-BA (Boiler Annex) Building
6. 3621-66 Underground Storage Tank
7. MO-741 Trailer.

The D4 of these facilities included characterization; engineering; removal of hazardous and radiologically contaminated materials; equipment removal; utility disconnection; deactivation, decontamination, demolition of the structure; and stabilization (in-place) or removal of slabs and foundations.

This report also summarizes in Section 3 the nine below-grade slabs/foundations removed in FY09 of buildings demolished in previous fiscal years.

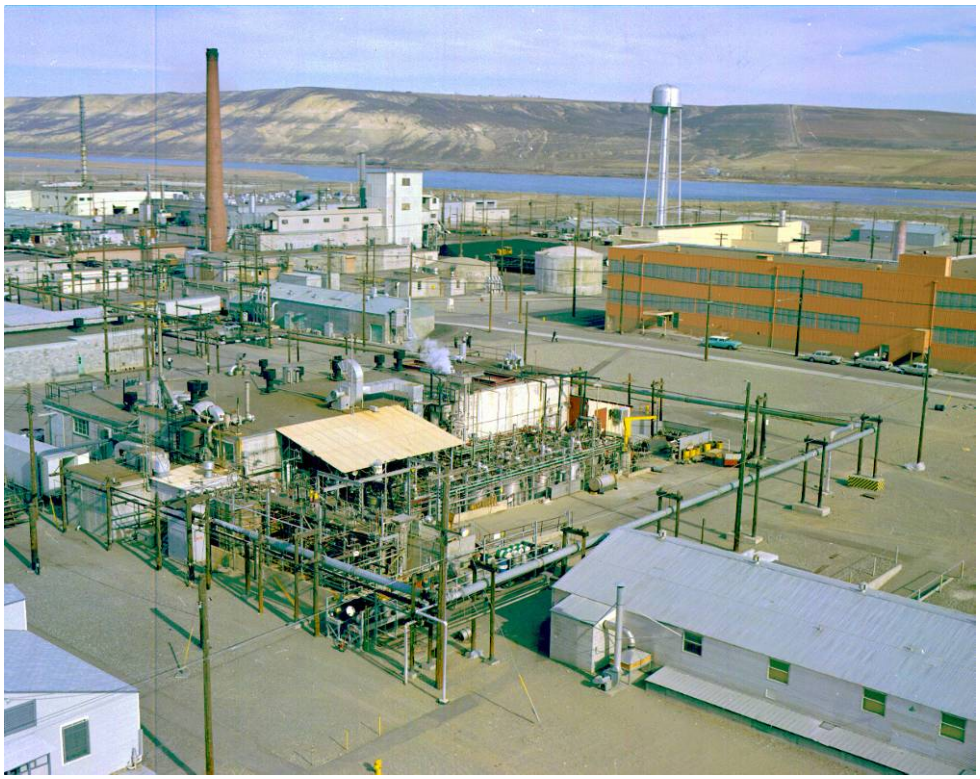
2.0 FACILITY DESCRIPTION AND CONDITIONS

The seven facilities detailed in this report were located in the 300 Area of the Hanford Site, which is owned and operated by the U.S. Department of Energy (DOE), in Benton County, Washington. The 300 Area was constructed and operated as a reactor fuel fabrication and laboratory complex.

2.1 321 COMPLEX

The 321 complex includes buildings 321, 321B, 321C, 321D, and 323 (formerly 321A).

Figure 1. 321 Complex.



The 321 Cold Chemical Semi-Works, also known as the 321 Separations Building, provided chemical pilot plant support for the 200 Area chemical separations plants from 1944 to 1967. In 1967, the 321 Buildings were cleaned out and modified to install the Hydraulic Core Mockup (HCM) pilot plant systems for the Fast Flux Test Facility (FFTF) Reactor project.

The 321 Building Tank Farms 1 and 2 on the south side were replaced by the 321B Test Loop Facility and the 321C Inlet Plenum Module Demonstration Unit, respectively. The 321 Maintenance Shop (east side) was replaced by the 321D Seismic Facility.

Figure 2. The 321 Complex was Turned Over to WCH in September 2005.

Since 1995, the 321, 321B, 321C, and 321D Buildings had been designated as restricted access, contaminated (e.g., biological, chemical, and radiological) facilities in a cold, dark, and isolated status.

321 Building: The 321 Building was partitioned about mid-length with an east-west 0.3-m (1-ft) thick concrete wall. The north side of the 321 Building had a 37 m (122 ft) wide by 14 m (45 ft) long main floor at 1.2 m (4 ft) above grade with offices, control room, rest rooms, and lunch room. The north side had a full basement with ventilation supply, equipment, maintenance, and storage rooms on a concrete floor at 2.3 m (7.5 ft) below grade and a concrete roof at 5.5 m (18 ft) above grade. Two rooms on the north wall (center and east end) had 0.3-m (1-ft) thick concrete walls.

The south side of the 321 Building was a 37 m (122 ft) long by 18.1 m (59.5 ft) wide, high bay structure with multiple basements, steel grate mezzanines, and a steel framework tower extending 9.1 m (30 ft) above the concrete roof. The main (original) floor was 1.2 m (4 ft) above grade; the main basement floor (original) was 2.3 m (7.5 ft) below grade. After 1967, a 25.6 m (84 ft) wide by 11 m (36 ft) long area at the east end of the basement floor was removed and excavated to a depth of 16 m (52.5 ft) below grade (extent of steel forms). A 25.6 m (84 ft) wide by 11 m (36 ft) long concrete sub-basement was installed at a depth of 10.4 m (34 ft) below grade. A steel framework structure was installed in the sub-basement to support metal grate mezzanines and stairwells and a 7.3 m (24 ft) wide by 11 m (36 ft) long metal framework tower extending through the south roof (7 m [23.1 ft] above grade) to a height of 16.2 m (53.1 ft) above grade. The tower was located in the east end of the sub-basement over a 6.1 m (20 ft) diameter by 2.7 m (9 ft) deep concrete pit. The floor of the concrete pit was 13.2 m (43.5 ft) below grade. The top of the HCM of the FFTF Reactor installed in the concrete pit was at ground level (Ref. 392.5 ft) i.e. about 1.2 m (4 ft) below the 321 Building main floor. The tower

centered over the HCM supported a 25 Ton bridge crane at 4.7 m (15.5 ft) above grade and a smaller circular monorail crane at 14.9 m (49 ft) above grade.

321 HVAC Annex: The 321 Building HVAC Annex was a 7.3 m (24 ft) wide by 5.9 m (19.5 ft) long by 4.6 m (15 ft) high concrete block building on the west side. The HVAC Annex was part of the original building construction and had a built-up composition roof.

321 Equipment Vent/Battery Room Annex: The 321 Building Equipment Vent and Battery Room Annex was a 4.3 m (14 ft) wide by 4.3 m (14 ft) long metal building; its floor was about 1.2 m (4 ft) above grade and its metal roof was about 4.6 m (15 ft) above grade.

321B Building Test Loop (321 Tank Farm No. 1): The 321B Building was a 15 m (50 ft) long by 11 m (36 ft) wide by 5.8 m (19 ft) high all metal building with a pitched roof. It was installed on top of the concrete containment walls of the 321 Tank Farm No. 1 that varied in height from about 2 m (7 ft) above grade to about 1.2 m (4 ft) below grade. Concrete block was used to level the tank farm containment wall. The metal east wall of the 321B Building forms the west wall of the 321C Building that was installed over the adjoining 321 Tank Farm No. 2. The concrete basement of the 321B Building included a concrete sump (approximately 1.2 m [4 ft] by 1.2 m [4 ft] by 0.6 m [2 ft] deep) that was part of Tank Farm No. 1. Steel grating and stairs connected the main level of the 321B Building to the basement area.

321C Building HCM Pump House (321 Tank Farm No. 2): The 321C Building was a 9.8 m (32 ft) long by 15.2 m (50 ft) wide by 3.6 m (12 ft) to 4.9 m (16 ft) high all metal building with a flat roof. It was installed on the concrete containment walls of 321 Tank Farm No. 2 on the south side of the 321 Building. The 321C Building was joined to the south wall of the 321 Building and the east wall of the 321B Building. Like the 321B Building, the 321C Building had multiple levels due to its installation over Tank Farm No 2 that had containment walls of varying heights. The main floor was about 0.9 m (3 ft) below grade and about 1.2 m (4 ft) above the floor of Tank Farm No. 2. Large concrete pedestals in 321C supported the three 450 HP pumps and the 11,000 gallon horizontal storage tank for the FFTF Mockup facilities in the 321 Building.

321D Building: The 321 Building Machine Shop was modified and converted into the 321D Seismic Test Facility. The 321D Building was a metal frame, insulated panel, lean-to structure with an insulated steel roof attached to the east side of the 321 Building at the southeast corner. The 321D Building was 10.2 m (33.6 ft) long by 6.7 m (22 ft) wide by 3.3 m (10.7 ft) high at low end of roof to 4.8 m (15.7 ft) where roof joints east side of 321 Building.

2.2 323 BUILDING

Formerly the 321A Pyrochemical Building, the 323 Building was known as the Mechanical Properties Laboratory which included sodium loop test equipment. Four 25,000 gallon horizontal waste storage tanks associated with 321 Tank Farm No. 3 remain in a concrete vault below where the 323 Building stood.

Figure 3. The 323 Building was Turned Over to WCH in October 2007.

The 323 Building was an all metal building on a concrete foundation located 30.5 m (100 ft) south of the 321 Building. It had overall dimensions of 24.4 m (80 ft) long by 14 m (45.8 ft) wide by 4.6 m (15.1 ft) high (above grade). The south 16.8 m (55 ft) of the 323 Building was installed over a concrete vault containing waste storage tanks (321 Tank Farm No. 3). The concrete vault, which remained in-place, is 16.8 m (55 ft) long by 14 m (45.8 ft) wide by 4 m (13.1 ft) high (excluding sump); the vault roof is 1.5 m (5 ft) below grade. A 2.1 m (7 ft) high concrete wall on the outer edge of the concrete vault is the foundation for the 323 Building. A 16.8 m (55 ft) long by 1.8 m (5.8 ft) wide metal roof was added on the east side from the 323 Building roof down to the concrete foundation to enclose the remaining area over the concrete vault. The lower area of the 323 Building is 16.8 m (55 ft) long by 14 m (45.8 ft) wide (i.e., the concrete vault roof is the floor of the lower level of 323). The upper north end of the 323 Building is 7.6 m (25 ft) long by 12 m (40 ft) wide and had a concrete floor at grade.

2.3 332 BUILDING

The 332 Building was known as the Hazardous Waste Interim Holding Facility and Packaging Test Facility. The building was constructed in the early 1980s by Pacific Northwest Laboratories as a Class-H (unrestricted storage of flammable and explosive materials) storage building. It then became a permitted less-than-90-day waste storage area which was closed on April 21, 1997. Its final mission was a testing facility for the U.S. Department of Transportation shipping packages.

Figure 4. The 332 Building was Turned Over for Demolition in July 2004.

The 332 Building was a pre-engineered metal building on a 15.24 cm (6 in.) slab with footings. The building was 6.10 m (20 ft) by 6.10 m (20 ft) by 3.05 m (10 ft) in eve height. On the north and west sides of the building was a 0.15 m (0.5 ft) thick slab with spill curbing.

2.4 335 BUILDING

The 335 Building was known as the Fast Reactor Thermal Engineering Facility and Sodium Test Facility. The 335 Building was designated as non-nuclear in its Initial Hazard Categorization (IHC).

The original role of the 335 Building was to conduct sodium-related tests for the Fast Flux Test Facility (FFTF) development through the late 1970s. The 335 Building contained experimental equipment to study the properties of sodium and the behavior of mechanical components to be operated in a sodium environment. In reality, many of the experiments were conducted with a sodium and potassium mixture with properties very similar to pure sodium. The sodium test loops were deactivated in 1977 and removed during the 1983-1984 time period.

The 335 Building was constructed in 1968 as a single-story, rectangular structure 30.48 m (100 ft) by 18.29 m (60 ft) by 7.31 m (24 ft) high constructed on a concrete foundation with corrugated steel sides, and a corrugated steel roof topped with gravel.

A small cinder block addition was constructed on the west side of the 335 Building where the sodium test loops were stored, that was used as a “less than 90 Day Accumulation Area”. There was a covered storage area on the north side of the building and two cargo shipping containers on the north-east corner of the building.

Figure 5. The 335 Building was Turned Over for Demolition in September 2005.

2.5 337-BA BUILDING

The Boiler Annex was installed between August 1997 and March 1998 to provide steam to the 337 Building. It was constructed to replace the steam provided by the 384 Powerhouse as part of the Energy Savings Performance Contract Project in 1997.

The 337-BA Boiler Annex was a pre-engineered metal building built on a concrete slab that housed two natural-gas-fired, steam boilers. The annex contained a sump and sump pump. The building measured 9.0 m (29.5 ft) by 6.6 m (21.5 ft) and had 7.62 cm (3 in.) curbing around the sump and water softener. Both boilers were inactive.

Figure 6. The 337-BA Building was Turned Over to WCH in July 2007.

2.6 3621-66 UNDERGROUND STORAGE TANK

The 3621-66 underground storage tank provided fuel to the back-up diesel generator for the 3621-D Building. The site is located in the eastern portion of the 300 Area approximately 146.3 m (480 ft) north of the intersection of the George Washington Way Extension and Cypress Street. The system consisted of a 4,000-gallon underground storage tank and the associated piping.

Figure 7. The 3621-66 Underground Storage Tank was Turned Over to WCH in August 2005.

Excavated Tank

2.7 MO-741 TRAILER

The MO-741 trailer was manufactured and brought to the Hanford Site in 1993 for use as office space for staff associated with the 340 facilities.

The facility was a 7.31 m (24 ft) long by 3.04 m (10 ft) wide single wide trailer containing one main room used as an office with no internal partition. Construction was wood framing with a sheet metal exterior. The office space was vinyl paneled with carpet flooring. The roof was sheet metal. The unit was skirted with metal panels between the ground and the structure.

Figure 8. The MO-741 Mobile Building was Turned Over to WCH for Demolition in September 2008.

3.0 PROJECT ACTIVITIES

3.1 ENGINEERING AND PERMITS

The Removal Action Work Plan for 300 Area Facilities (DOE-RL 2007) was prepared to satisfy the requirements of the action memoranda #1 and #3 (EPA and DOE 2005; 2006), outlining how compliance with, and enforcement of, applicable regulations will be achieved for cleanup of 300 Area facilities. Additionally, the removal action work plan (DOE-RL 2007) and environmental control plan (WCH 2009) serve as the decommissioning plan and project management plan for the 300 Area project. The removal action work plan was prepared in accordance with Section 7.2.4 of the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) (Ecology et al. 1989) and was approved by the DOE, Richland Operations Office and the regulators.

Plant Forces Work Reviews were prepared for the demolition of the seven facilities to determine whether *Davis-Bacon Act of 1931* prevailing wage rates for the work were applicable. Table 1 summarizes the reviews performed. The D4 work on all seven facilities was determined to be "not applicable" and the work was performed by plant forces.

Table 1. Plant Forces Work Reviews.

Building	PFWR Number	PFWR Title
321, 323(321A, 337-BA	8850-059-06, Rev. 1	Demolition of Various 300 Area Buildings
332, 335, MO-741	8850-027-0, Rev. 0	Demolition of 300 Area Buildings
3621-66	8850-003-08, Rev. 0	Remove Abandoned Underground Fuel Tank

Criticality screenings for the facilities were performed where required by the IHC. These criticality evaluations showed that fissionable material inventories did not exceed threshold activity values and no criticality safety requirements or controls were needed for the buildings. In addition, all the facilities were either non-nuclear or below the Category 3 threshold quantity as defined in Table A.1 of DOE Standard – *Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Reports* (DOE-STD-1027-92, Change Notice No. 1 [DOE 1997]). When D4 work began in the buildings, some standard industrial hazardous substances remained in the buildings (e.g., polychlorinated biphenyls [PCBs]), lead paint, mercury, Freon, asbestos, beryllium). The quantity of these nonradioactive hazardous substances also did not exceed the threshold quantities ("Threshold quantities" as defined in 20 *Code of Federal Regulations* 1910.119 or 40 CFR 68.130). Table 2 identifies the facilities and associated IHC documents for each.

Table 2. Initial Hazard Categorization Evaluations and Results.

Facility	IHC Number	IHC Category
321 Complex, 323	IHC-2006-0022, Rev. 1	Below Category 3
332	IHC-2005-0031, Rev. 1	Below Category 3
335, 337BA, 3621-66, MO-741	IHC-2006-0017, Rev. 1	Non-Nuclear

IHC = Initial Hazard Categorization

3.2 HAZARDOUS MATERIAL REMOVAL

The scope of the demolition project included removing and properly disposing of hazardous materials (e.g., oils, grease, asbestos-containing material, mercury, lead, and PCBs). All known hazardous materials were removed from inside and outside of the buildings prior to demolition. In most cases, some Class II non-friable asbestos containing material (e.g., roofing material, floor tile, and vinyl sheeting) was left in place and removed during the demolition phase of the project. In these cases, all building demolition waste was treated as asbestos waste, and controls to minimize asbestos fiber release (e.g., fixatives, wet methods, and air monitoring) were used throughout the demolition process.

Beryllium-contaminated equipment, including high-efficiency particulate air filters and duct work, were of particular concern in those buildings that were beryllium listed. These items were thoroughly characterized prior to removal, and work control methods to minimize airborne beryllium particulate (e.g., fixatives, wet methods, air monitoring, and hygiene practices) were implemented throughout the decommissioning and demolition process.

3.3 UTILITY AND DRAIN ISOLATION

Once the utilities were no longer needed in the building (prior to hazardous materials removal), all electrical, water, and telecommunications services were disconnected from the buildings. Floor drains were inspected for mercury and then sealed to provide isolation. Sanitary sewers to the building were disconnected during early deactivation activities and all drains were grouted.

3.4 DEMOLITION OF ABOVE-GRADE STRUCTURES

In general, after the hazardous materials and equipment removal activities were performed and utilities isolated, the above-grade structures were ready for demolition. The building structures were demolished using excavator-mounted hydraulic shears and a bucket-and-thumb. The debris was segregated for loading and disposal. Building debris was processed and sampled until industrial hygiene monitoring confirmed that loading and unloading waste did not generate airborne beryllium. Standard Environmental Restoration Disposal Facility (ERDF) roll-on/roll-off containers with two 6-mil liners were used to package and ship debris. Beryllium controls required that a pool of containers were designated for use in the 300 Area only. These containers were part of a "closed-loop" disposal system and remain exclusively for use in the 300 Area.

3.5 BELOW-GRADE DEMOLITION AND SITE RESTORATION

In general, for each building demolished (or for a given complex) a post-demolition summary report is prepared that documents the characterization and final status of the building at the completion of the D4 activities. Table 3 summarizes the as-left conditions of each facility. Slabs left in place will be removed at a later date by the D4 Closure Project or the Field Remediation Closure Project. Also summarized in Table 3 is the current site posting for each facility.

Table 3. Facility As-Left Condition Summary.

Building	Slab/Below-Grade Condition	Site Posting
321 Complex	Below-grade structure and tank remain	Contamination Area Beryllium Contaminated Area Inhalation Hazard
323	Below-grade concrete vault containing waste storage tanks remains	Contamination Area Beryllium Contaminated Area Inhalation Hazard
332	Removed	None
335	Slab Remains	None
337-BA	Slab Remains	None
3621-66 (UST)	Removed	None
MO-741 Trailer	Not Applicable	None

UST = underground storage tank

In addition to D4 of the seven facilities that occurred this reporting period, the following nine slabs left behind from previous D4 actions were also removed: 3718, 3718A, 3718B, 3718C, 3718E, 3718E, 3718N, 3721, and 3728. The 3720 Building was demolished to slab on grade during FY07. The slab was removed during FY08, but completion of load-out of this slab occurred in FY09.

4.0 COST AND SCHEDULE

The following section details start and finish dates for the major D4 activities in each of the seven facilities as well as the total labor costs. These costs do not include deactivation or surveillance and maintenance work performed by Fluor Hanford, Bechtel Hanford, Inc., and other contractors prior to turnover of the building to WCH. They also do not include overhead or distributed costs, equipment and material costs, or incidental work performed by subcontractors.

Note that some activities began prior to the current reporting year (fiscal year 2009). Also, entries reading "NC" mean that no costs were collected or charged specifically to this activity. In the case of the 3621-66 underground storage tank (UST), a subcontractor flushed the contents of the tank and Surveillance, Maintenance and Utilities (SM&U) removed the tank.

The total labor cost (before overhead and distributed costs) for all seven buildings was $2,087,440.

Table 4. Cost and Schedule Summary. (2 Pages)

321 Complex	Start Date	Completion Date	Cost
Engineering Planning	12/04/06	05/19/08	$91,374
Building Deactivation	06/18/07	05/05/08	$1,333,957
Building Demolition (AG)	06/03/08	02/11/09	$289,011
Waste Loadout (AG)	07/14/08	03/09/09	$173,169
			TOTAL $1,887,511

323 Building	Start Date	Completion Date	Cost
Engineering Planning	01/21/08	06/23/08	$13,803
Building Deactivation	03/19/08	04/21/08	$17,787
Building Demolition (AG)	06/26/08	06/26/08	$14,523
Waste Loadout (AG)	07/21/08	02/25/09	$8,316
			TOTAL $54,429

332 Building	Start Date	Completion Date	Cost
Engineering Planning	03/30/09	05/27/09	$3,926
Building Deactivation	04/30/09	04/30/09	$13,236
Building Demolition	08/03/09	08/10/09	$23,423
Waste Loadout	08/10/09	08/12/09	$6,422
			TOTAL $47,007

Table 4. Cost and Schedule Summary. (2 Pages)

335 Building	Start Date	Completion Date	Cost
Engineering Planning	05/04/09	06/25/09	$11,954
Building Deactivation	05/20/09	06/09/09	$49,450
Building Demolition (AG)	06/23/09	06/24/09	$5,130
Waste Loadout (AG)	07/15/09	08/05/09	$28,437
			TOTAL $94,971

337-BA Building	Start Date	Completion Date	Cost
Engineering Planning	07/16/07	07/24/08	$1,961
Building Deactivation	07/16/07	07/19/07	$268
Building Demolition (AG)	07/24/08	05/28/09	$467
Waste Loadout (AG)	06/11/09	06/16/09	$34
			TOTAL $2,733

3621-66 UST	Start Date	Completion Date	Cost
Engineering Planning	07/21/08	09/30/08	NC
Building Deactivation	11/03/08	11/06/08	NC
Building Demolition	11/10/08	12/09/08	NC
Waste Loadout	12/09/08	12/09/08	NC
			TOTAL NC

MO-741 Trailer	Start Date	Completion Date	Cost
Engineering Planning	10/01/08	10/09/08	$544
Building Deactivation	10/09/08	10/09/08	NC
Building Demolition	10/09/08	10/09/08	$245
Waste Loadout	10/20/08	10/20/08	NC
			TOTAL $789

GRAND TOTAL	**$2,087,440**

AG – Above Grade Demolition
NC – No costs collected or charged specifically to this activity

5.0 WASTE DISPOSITION

One of the objectives of the 300 Area D4 Project is to support recycling and waste minimization. However, beryllium and radiological contamination throughout the site will prevent most of the material and equipment from the buildings to be salvaged and/or transferred offsite. Therefore, all of the debris for buildings identified in this report was shipped to the ERDF for disposal.

Waste generated during demolition of the seven facilities and nine slabs demolished in FY09 was characterized under waste profiles and shipped to ERDF. Roll-on/roll-off boxes were used to ship the debris. The total number of these shipments ("cans"), tons of debris disposed of in ERDF, and the profiles used are listed in Table 5.

Table 5. Waste Transferred to ERDF.

Facility	Number of Shipments	Tons	Waste Profile(s)
321 **321B** **321C** **321D**	287	2030	300LSF001 REV 1 REV 2 REV 3
323	73	350	300LSF001 REV 2
332	14	182	300UFPSB001 REV 9
335	54	149	300FDT001 REV 0 REV 1
337-BA	4	75	337001 REV 3
3621-66	3	Not Available	337001 REV 3
MO-741	1	Not Available	300LSF001 REV 2
Slabs	**Number of Shipments**	**Tons**	**Waste Profile (s)**
3718	109	846	300LSF001 REV 4
3718A			
3718B			
3718C			
3718E			
3718N			
3720			
3721			
3728			

6.0 OCCUPATIONAL EXPOSURES

6.1 PERSONNEL INJURIES

Washington Closure Hanford personnel worked a total of approximately 700,000 hours (manual and non-manual, including subcontractors) on the 300 Area D4 project with 2 Occupational Safety and Health Administration recordable injuries and 1 lost workday case.

6.2 PERSONNEL RADIOLOGICAL EXPOSURES

Of the seven 300 Area facilities discussed in this report, no clothing or skin contamination incidents occurred during D4. In addition, the “as low as reasonably achievable” goal of zero person-mrem was achieved. All boundary air sample results were below procedural action levels for the duration of the project.

7.0 REFERENCES

20 CFR 1910, "Occupational Safety and Health Standards," *Code of Federal Regulations,* as amended.

40 CFR 68, "Chemical Accident Prevention Provisions," *Code of Federal Regulations*, as amended.

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