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Rev. 0

River Corridor
Closure Contract

300 Area D4 Project 4th Quarter Fiscal Year 2006 Building Completion Report

January 2007

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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REVISION HISTORY

Revision	Date	Reason for revision	Revision initiator
0	01/07	Initial issuance	NA

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 documents the deactivation, decontamination, decommissioning, and demolition (D4) of nine buildings in the 300 Area of the Hanford Site. The D4 of these facilities (303C, 3708, 377, 3717, 3717B, 305, 305B, 305BA, and 333) included characterization, engineering, removal of hazardous and radiologically contaminated materials, equipment removal, utility disconnection, deactivation, decontamination, demolition of the structure, and stabilization or removal of the remaining slab and foundation, as appropriate.

For descriptions and details regarding buildings completed earlier in fiscal year 2006, see *300 Area D4 Project 1st Quarter Fiscal Year 2006 Building Completion Report* (WCH 2006a), *300 Area D4 Project 2nd Quarter Fiscal Year 2006 Building Completion Report* (WCH 2006b), and *300 Area D4 Project 3rd Quarter Fiscal Year 2006 Building Completion Report* (WCH 2006c).

2.0 FACILITY DESCRIPTION AND CONDITIONS

The nine buildings 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, in Benton County, Washington. The 300 Area was constructed and operated as a reactor fuel fabrication and laboratory complex.

2.1 303C BUILDING

The 303C Building was known as one of the "Fresh Metal Storage Buildings" and also as the "Special Nuclear Materials Storage Facility" (Figure 1). It was originally built and used for the storage of unirradiated uranium billets prior to them being moved to the 314 Building, where they were pressed into rods. Later, the building was used for the assembly and testing of experimental nuclear material detectors.

The original construction of the 303C Building consists of concrete block walls on a 0.13-m (5-in.) concrete slab floor with foundation and a 0.15-m (6-in.) concrete slab roof with built-up roofing material. The dimensions of the building are 14.7 m (48.2 ft) by 8.3 m (27.2 ft) by 3.1 m (10.1 ft) in height.

In the early 1970s the building was modified for the storage of special nuclear materials for the Commercial High-Level Waste Fixation Project operated by Pacific Northwest Laboratory. A 218-tube storage array set horizontally in concrete was constructed along the western interior wall to provide the major storage area for the building. Modifications were made to the building after a March 13, 1979, plutonium contamination incident. The modifications included airlock entries and an area for glovebox or fume hood work.

Figure 1. 303C Building.

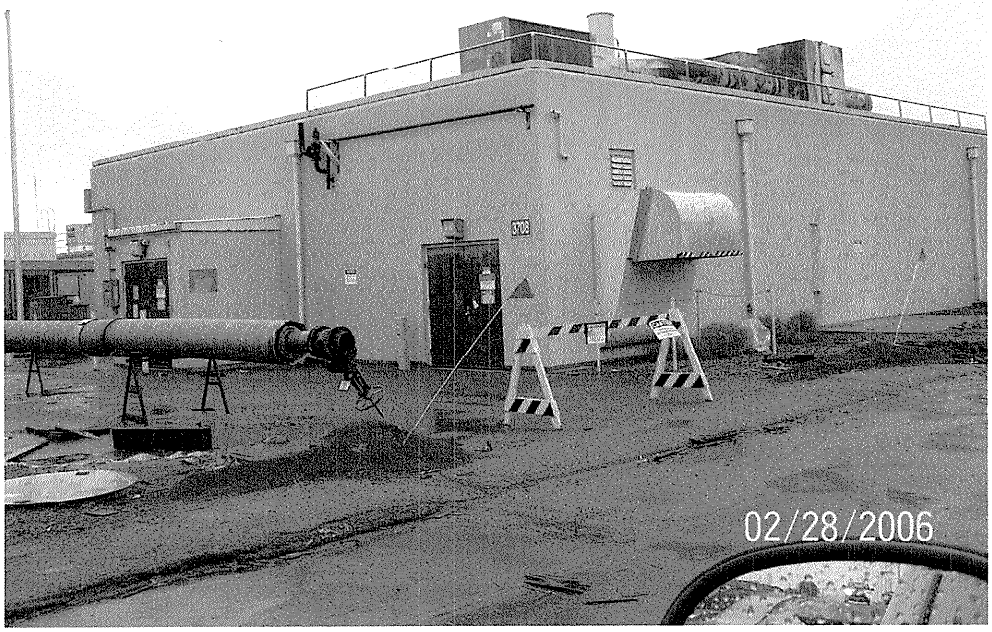
2.2 3708 BUILDING

The 3708 Building was known as the "Electrical and Optical Shop," the "Transuranium Pilot Facility", and the "Radioanalytical Laboratory" (H-3-48773) (Figure 2). The building was constructed in approximately 1948 and consisted of a 0.15-m (6-in.) concrete slab foundation with footings and concrete block walls. The roof was a concrete slab with parapet and built-up roofing. The dimensions of the building were 22.8 m (74.7 ft) by 15.6 m (51.3 ft) by 5.02 m (16.5 ft) in height. There was a 3.25-m (10.67-ft) deep service pit in the north end of the building.

The building had many uses; it served as an optical and electrical repair shop as well as a vehicle maintenance shop. In approximately 1969, the building was modified by Douglas United Nuclear for use as a "Transuranium Pilot Facility." Initially, this facility was used for the production of neptunium oxide fuel targets that were canned in aluminum and then irradiated in the 100-K reactors. The next operation combined neptunium oxide with graphite into a pellet form, and then canned in aluminum for irradiation in the 100-K reactors. The north end of the building was used in the early 1970s for the experimental canning of americium and curium oxide fuel blends.

Starting in the early 1980s, the building was modified by Pacific Northwest Laboratory for use as a radioanalytical laboratory. Most of the work done during this time was analysis of environmental samples (e.g., soil and water) for chemical constituents, low-level to ultra-trace levels of radioisotopes, and research/development of analytical methods.

Figure 2. 3708 Building.



2.3 377 BUILDING

The 377 Building was known as the Steam Generator Examination Facility and the Geotechnical Engineering Laboratory (Figure 3). The building was designed and constructed in the early 1980s as a special-use facility for Pacific Northwest Laboratory to conduct nondestructive testing, inspection, examination, and destructive testing of a steam generator from a commercial nuclear power plant. Actual steam generator examination activities took place between 1983 and 1987. Following completion of the generator activities, considerable decontamination and equipment removal took place at the facility. In 1990, the facility was transferred to Westinghouse Hanford Company. For a short period of time the building was known as the Geotechnical Engineering Laboratory and was used as a characterization laboratory for the testing of Hanford Site soil samples. All operations within the facility were discontinued in late 1995.

The 377 Building was composed of two distinct sections, north and south, with a common wall. The north section was a two-story support structure approximately 9.14 m (30 ft) in height above the finished grade and measured approximately 9.75 m by 7.72 m (32 ft by 25.3 ft). The exterior walls, elevated floors, and roof were precast concrete panels. This support wing contained an entry vestibule, change rooms, air lock, laboratory area, decontamination shower, trucklock, and a mechanical room on the second floor.

The south section was the former generator tower and was composed of four floors and a basement approximately 12.19 m by 10.82 m (40 ft by 35.4 ft) in size. The basement walls were cast-in-place reinforced concrete, extending 3.65 m (12 ft) above finished grade, and three sides with the common wall between the north and south sections extending to 9.14 m (30 ft).

The walls above the cast-in-place concrete were precast concrete panels. The elevated floors consisted of steel grating, and the roof was concrete on metal decking with a built-up asphalt cover. There were four removable roof panels (4.9 m by 4.9 m [16 ft by 16 ft] total) that were provided to allow placement and removal of the steam generator. The bottom floors of both sections were slabs on grade.

Figure 3. 377 Building.

2.4 3717 BUILDING

The 3717 Building, called both the Maintenance Sheet Metal Shop and the Sheet Metal and Engineering Building, was constructed in 1943 to support maintenance and craft construction (Figure 4). It was a one-story wood frame structure, 22.2 m by 50.3 m by 7.3 m (73 ft by 165 ft by 24 ft), built on concrete foundation with concrete slab floor. A 22.6-m by 9.8-m by 4.3-m (74-ft by 32-ft by 14-ft) addition was constructed on the north side of the building in 1954. The facility included offices, a storeroom, sanitary restrooms, and craftsman work benches. Shop floors at the east end were sloped to floor drains that were connected to the process sewer (seven total) beneath the concrete floor. The original process sewers and floor drains for the building were isolated, plugged, and abandoned in place.

Figure 4. 3717 Building.

2.5 3717B BUILDING

The 3717B Building was known as the Standards Laboratory and was built in 1950 to provide maintenance, calibration, and standards services to the 300 Area (Figure 5). The original 3717B Building was a one-story, concrete block and metal (prefab partitions) structure with a Quonset hut-type built-up roof, all built on a concrete slab with footings. The original building dimensions were 12.6 m (41.5 ft) by 51.2 m (168 ft) by 4.66 m (15.3 ft) high. In the early 1980s an addition was added to the southwest portion of the building to house the Metrology Lab, and had dimensions of 7.3 m (24 ft) by 23 m (74 ft) by approximately 3.7 m (12 ft) high. In the early 1990s an addition was added to the southeast portion of the building to house the Mass, Electrical, and Electronics Lab and had dimensions of 7.6 m (25 ft) by 24.8 m (81.3 ft) by approximately 3.7 m (12 ft) high.

Figure 5. 3717B Building.

2.6 305 BUILDING

The 305 Building housed the 305 Test Pile, a.k.a. Hanford Test Reactor (HTR), and later was used to support cold mechanical development including for the Hot Cell Verification Facility (Figure 6). It was a two-story and high bay steel-framed concrete structure with steel superstructure supports, concrete block and concrete tilt-up slab walls, a pre-cast concrete slab pitched roof (with asphalt composition coating), and reinforced concrete floors throughout. The 305 Building was 16 m (51 ft) high and had an overall length of 67.6 m (222 ft), an overall width of 26.5 m (87 ft), and covered a total area of 1,254 m^2 (13,500 ft^2).

The 305 HTR, the first operating reactor at the Hanford Site, began operations in March 1944. In 1964, it was the oldest operating reactor in the world. The 305 Test Pile was used to provide real-time quality control inspection and acceptance of reactor fuel and construction materials (i.e., uranium, graphite, aluminum) for production use until 1968. It continued to support the N Fuels Program until 1973. Work to remove the HTR natural uranium core (27 tons) was performed in 1974 and 1975, and from 1979 to 1985 the 305 Building was used as the Hot Cell Verification Facility, a cold equipment testing prototype of the 427 Fuels and Materials Examination Facility near the Fast Flux Test Facility reactor area. The building continued service as a research and testing facility until 2001, supporting test programs for Waste Receiving and Processing facility waste containers, work on a flexible radiation detection system, and testing of several mechanical systems for the K-Basin Spent Fuel Storage Project.

Figure 6. 305 Building.

2.7 305B BUILDING

The 305B Building complex was known variously as the Test Reactor Facility (TRF), the Process Engineering Laboratory, and the Hazardous Waste Storage Facility (Figure 7). The 305B Building Complex consists of three physically distinct structures, which share common walls, and were constructed at different times during the earlier years of Hanford Site operations. The facility was a *Resource Conservation and Recovery Act* (RCRA)-permitted waste treatment, storage, and disposal (TSD) unit, which operated under RCRA TSD permit WA7890008967 (Ecology 1994) until 2006.

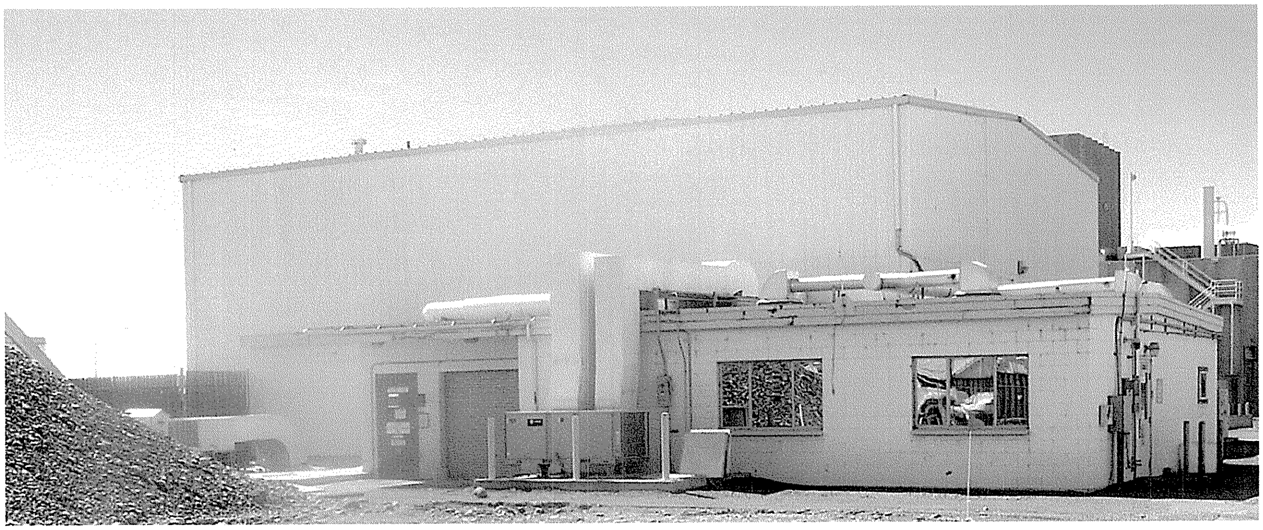
The 305B TRF was a mostly subsurface structure built in 1954 directly south of the 305 Building. It was an underground reinforced concrete monolith, measuring 37 by 5.5 by 2.6 m high (121 by 18 by 8.5 ft high), with a flat concrete roof, and was surmounted by a small (13.6-m^2) (146-ft^2) entry building/bathroom. It contained test reactor cells on each end, as well as two assembly rooms and two control rooms. The east end of the facility, which housed the Physical Constants Test Reactor (PCTR), protruded above grade approximately 3 m (9.5 ft) and is adjacent to the entry building. The west end of the facility housed the Thermal Test Reactor and protruded 1.4 m (4.5 ft) above grade. A 3-m (9.5-ft)-high soil berm surrounded the entry building and PCTR cell on three sides. The underground TRF operated from about 1954 to 1978 to support the determination of physical constants for various reactor concepts.

The 305B Office Building was a single-story facility built in 1958 and overlaped about one-half of the western portion of the roof of the TRF. It had a concrete block exterior with structural steel supporting the tar and gravel-topped plywood roof, and measured 21.8 m by 12.4 m (71.5 ft by 40.5 ft). In addition to offices, the building contained a computer room, counting room, instrument room, maintenance shops, and change room. A stairway access was constructed from this building to the underground TRF.

The 305B Hazardous Waste Storage Facility (HWSF) was constructed in 1980 directly west of, and sharing a common wall with, the office building. It also overlapped the last one-quarter of the underground TRF, and a portion of the TRF's roof was removed to provide direct access from the HWSF. It was a high-bay facility measuring 23 m by 18 m by 8.5 m high (75 ft by 60 ft by 28 ft high). It contained an individually exhausted fume hood and environmental chamber, four walled storage cells, and a network of spill curbing and trenches. The HWSF operated until early 2006.

The 305B Building RCRA TSD was clean closed in August 2006 as required by *Washington Administrative Code* 173-303-610(6) and the RCRA permit (Ecology 1994).

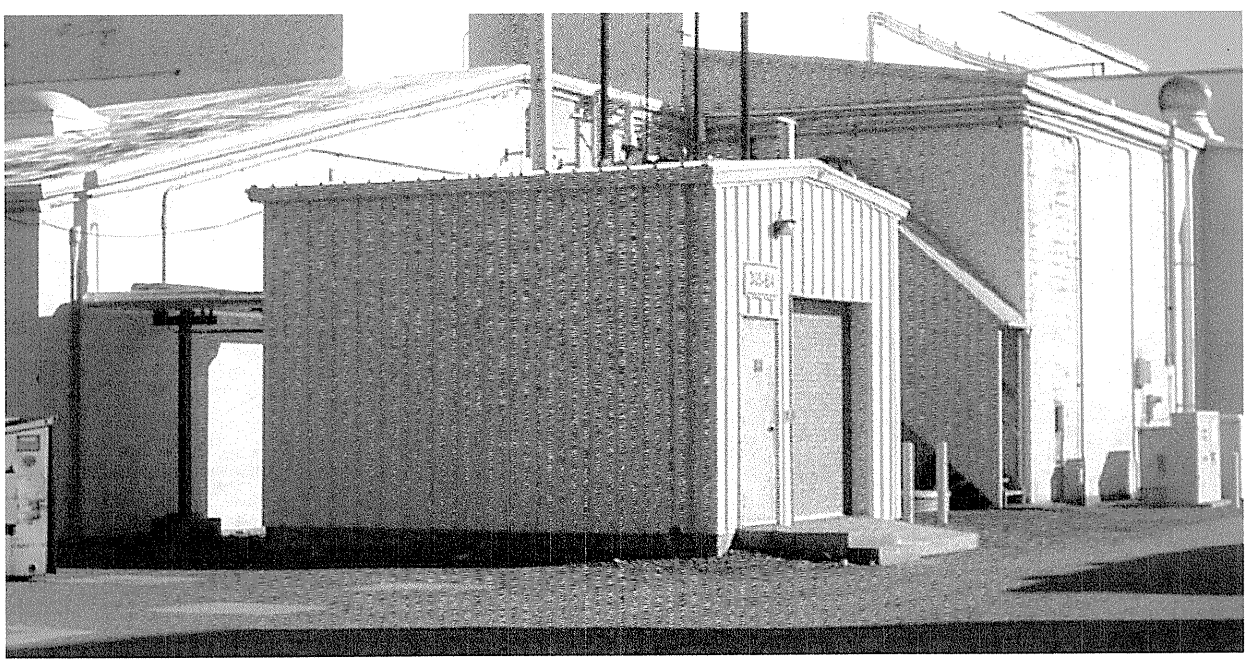
Figure 7. 305B Building.



2.8 305BA BUILDING

The 305BA Boiler Annex Building was a small steel frame building constructed in the 1990's to replace the steam heat provided by the deactivated 384 Building. It had corrugated metal roof and walls, and a concrete slab floor.

Figure 8. 305BA Building.

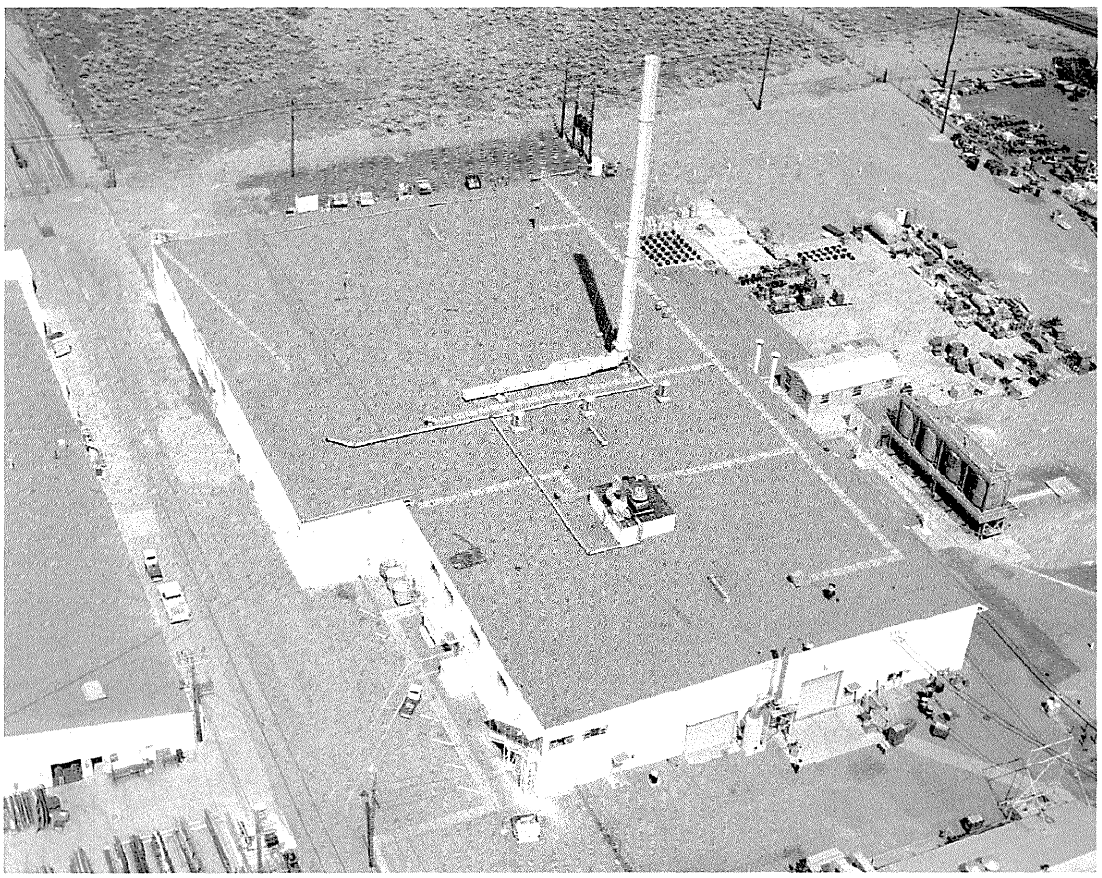


2.9 333 BUILDING

The 333 Building was a large steel frame structure with double metal insulated panel exterior walls and concrete foundation and floors (Figure 8). The roof covering consisted of metal insulated foam board covered with four-ply graveled asphalt roofing. A high bay ran through the length of the building. The original construction included a mezzanine on the east side for offices, a second floor chemical mezzanine in the center of the building, and an electrical mezzanine in the center of the east side. A second floor office, lunchroom, shop, and ventilation area was added to the west side of the building. The over-all floor plan of the building was 4321 m^2 (46,514 ft^2.)

The 333 Building was built during 1959 and 1960 to manufacture fuel elements for the N Reactor using the co-extrusion process. The building also housed part of the 300 Area Waste Acid Treatment System.

Figure 9. 333 Building (Aerial View, circa 1982).



3.0 PROJECT ACTIVITIES

3.1 ENGINEERING AND PERMITS

The Removal Action Work Plan #1 for 300 Area Facilities (DOE-RL 2005) was prepared to satisfy the requirements of the action memorandum (EPA and DOE 2005), 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 2005) and environmental control plan (WCH 2006d) 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 U.S. Department of Energy, Richland Operations Office and the regulators.

Plant forces work reviews (PFWRs) were prepared for the demolition of these nine buildings to determine whether *Davis-Bacon of 1931* prevailing wage rates for the work were applicable. Table 1 summarizes the reviews performed. The D4 work on all nine buildings was determined not to be applicable to the *Davis-Bacon Act of 1931* pay scale.

Table 1. Plant Forces Work Reviews.

Building	PFWR Number	PFWR Title
303C, 377	8850-021-06, Rev.0	300 Are Building Removal North
3708, 3717, 3717B	8850-024-05, Rev.0	North 300 Area Minor Building Removal
305, 305B, 305BA[a]	8850-037-06, Rev. 0	Demolition of 305, 305B
333	8850-018-06, Rev. 0	Demolition of Building 333

a Considered an "ancillary facility" to the 305 Building.

Criticality screenings were performed for all buildings. 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. (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])). Additionally, when D4 work began in the buildings, some standard industrial hazardous substances remained in the building (polychlorinated biphenyls, lead paint, mercury, Freon, asbestos, beryllium, etc). The quantity of these nonradioactive hazardous substances also did not exceed the threshold quantities ("Threshold quantities" as defined in 29 *Code of Federal Regulations* (CFR) 1910.119 or 40 CFR 68.130). Table 2 identifies the buildings and associated initial hazard categorization (IHC) documents for each.

Table 2. Initial Hazard Categorization Documents (2 Pages)

Building	IHC Number
303C	IHC-2006-0007, Rev. 0 (WCH 2006g)

Table 2. Initial Hazard Categorization Documents (2 Pages)

Building	IHC Number
3708	IHC-2006-0008, Rev. 0 (WCH 2006h)
377	IHC-2006-0004, Rev. 0 (WCH 2006f)
3717	IHC-2006-0009, Rev. 0 (WCH 2006i)
3717B	IHC-2005-0031, Rev. 0 (WCH 2005b)
305	IHC-2006-0001, Rev. 0 (WCH 2006e)
305B	IHC-2006-0024, Rev. 0 (WCH 2006j)
305BA	IHC-2005-0031, Rev. 0 (WCH 2005b)
333	IHC-2005-0014, Rev. 1 (WCH 2005a)

3.2 HAZARDOUS MATERIAL REMOVAL

The scope of the D4 project included removing and properly disposing of hazardous materials (e.g., oils, grease, asbestos-containing material, beryllium, mercury, lead, and polychlorinated biphenyls). All known hazardous materials were removed from inside and outside of the buildings prior to demolition. Some Class II nonfriable asbestos-containing material (floor tile and vinyl sheeting) was left in place in the 3708, 377, 3717, 3717B, 305, 305B, and 333 Buildings during demolition, but was (or will be) removed with the floor slab. Class II nonfriable roofing material was also present in the 305 Building during demolition. All building demolition waste in these cases was treated as asbestos waste, and controls to minimize asbestos fiber release (wet methods and air monitoring) were used throughout the demolition process.

Beryllium-contaminated equipment, including high-efficiency particulate air filters and duct work, was a particular concern in the 333 Building. These items were thoroughly characterized prior to removal, and work control methods to minimize airborne beryllium particulate (wet methods, air monitoring, and hygiene practices) were implemented throughout the decommissioning and demolition process.

3.3 UTILITY AND DRAIN ISOLATION

Once hazardous material removal was completed in the buildings and the utilities were no longer needed, all electrical, water, and telecommunications services were disconnected from the buildings (if they had not been disconnected previously). 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

Most buildings were demolished and the slab and foundations (if any) removed. The exceptions are the slabs of the 303C and 333 Buildings, which will be removed at a later date, either by the D4 Closure Project or the Field Remediation Closure Project.

Most building sites remain Contamination Areas pending completion of nearby work and final downposting. The exception is 377, which was downposted to an Underground Contamination Area after the slab and foundations were removed. Additionally, the 333 Building remains both a Contamination Area and a Beryllium Control Area.

In general, for each building demolished a post-demolition summary report is prepared that documents the characterization and final status of the building at the completion of D4 activities. As of the date of this report, however, only three buildings have completed post-demolition reports. Table 3 summarizes the as-left conditions of each building and the associated documentation for the building.

Table 3. Building As-Left Condition Summary.

Building	Slab Condition	Site Posting	Post-Demolition Summary Report
303C	Remains	Contamination Area	To Be Completed
3708	Removed	Contamination Area	IOM 130023 (Dated 9/25/2006) (Jacques 2006a)
377	Removed	None	IOM 129500 (Dated 8/28/2006) (Jacques 2006b)
3717	Removed	Contamination Area	IOM 130272 (Dated 10/10/2006) (Jacques 2006c)
3717B	Removed	Contamination Area	To Be Completed
305	Removed	Contamination Area	To Be Completed
305B	Removed	Contamination Area	To Be Completed
305	Removed	Contamination Area	To Be Completed
333	Remains	Contamination Area and Beryllium Control Area	To Be Completed

4.0 COST AND SCHEDULE

The following section details start and finish dates for major D4 activities in each of the nine buildings, 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 Washington Closure Hanford. They also do not include overhead or distributed costs, equipment and material costs, or work performed by subcontractors. In general, costs for characterization work were collected under Engineering Planning and Deactivation.

Note that some activities began prior to the current reporting quarter (fourth quarter of fiscal year 2006). Also, entries reading "NC" mean that no costs were collected or charged specifically to this activity.

The total labor cost (before overhead and distributed costs) for all nine buildings was $1,944,519.

4.1 303C BUILDING

	Start Date	Completion Date	Cost
Engineering Planning	January 9, 2006	May 4, 2006	$43,698
Building Deactivation	June 6, 2006	June 14, 2006	$8,925
Building Demolition	June 29, 2006	July 6, 2006	$24,017
Waste Loadout	August 1, 2006	August 9, 2006	NC
		TOTAL	$76,640

4.2 3708 BUILDING

	Start Date	Completion Date	Cost
Engineering Planning	April 10, 2006	May 23, 2006	$13,024
Building Deactivation	May 22, 2006	June 29, 2006	$5,090
Building Demolition	July 6, 2006	July 11, 2006	$13,693
Waste Loadout	August 1, 2006	August 8, 2006	NC
		TOTAL	$31,807

4.3 377 BUILDING

	Start Date	Completion Date	Cost
Engineering Planning	April 10, 2006	May 11, 2006	$78,420
Building Deactivation	March 6, 2006	May 4, 2006	$15,452
Building Demolition	May 11, 2006	June 1, 2006	$91,187
Waste Loadout	May 15, 2006	July 20, 2006	NC
		TOTAL	$185,059

4.4 3717 BUILDING

	Start Date	Completion Date	Cost
Engineering Planning	April 10, 2006	June 8, 2006	$8,737
Building Deactivation	May 1, 2006	June 8, 2006	$72,052
Building Demolition	June 28, 2006	June 28, 2006	$45,745
Waste Loadout	July 18, 2006	July 25, 2006	NC
		TOTAL	$126,534

4.5 3717B BUILDING

	Start Date	Completion Date	Cost
Engineering Planning	March 3, 2006	June 8, 2006	$7,687
Building Deactivation	April 3, 2006	June 8, 2006	$24,287
Building Demolition	June 27, 2006	June 28, 2006	$3,574
Waste Loadout	July 18, 2006	July 27, 2006	NC
		TOTAL	$35,548

4.6 305 / 305BA BUILDING

	Start Date	Completion Date	Cost
Engineering Planning	January 17, 2006	April 20, 2006	$22,554
Building Deactivation	June 20, 2006	August 17, 2006	$44,863
Building Demolition	August 21, 2006	September 7, 2006	$55,676
Waste Loadout	September 12, 2006	Not yet completed	NC
		TOTAL	$123,093

4.7 305B BUILDING

	Start Date	Completion Date	Cost
Engineering Planning	March 27, 2006	May 3, 2006	$14,268
Building Deactivation	July 17, 2006	August 17, 2006	$10,834
Building Demolition	August 28, 2006	August 31, 2006	$19,112
Waste Loadout	June 12, 2006	Not yet completed	NC
		TOTAL	$44,214

4.8 333 BUILDING

	Start Date	Completion Date	Cost
Engineering Planning	August 29, 2005	January 24, 2006	$136,891
Building Deactivation	January 24, 2006	September 7, 2006	$1,145,844
Building Demolition	September 20, 2006	September 28, 2006	$38,889
Waste Loadout	October 4, 2006	Not yet completed	NC
		TOTAL	$1,321,624

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 off site. Therefore, all of the debris for buildings identified in this report was shipped to ERDF for disposal.

Waste generated during demolition of the nine buildings was characterized under three different waste profiles and shipped to ERDF. Roll-on/roll-off boxes were used to ship the debris, and the total number of these shipments ("cans"), tons of debris disposed of in ERDF, and the profiles used are listed in Table 4.

Table 4. Waste Transferred to ERDF.

Building	Number of Shipments	Tons	Waste Profile
303C	31	392	WP303C001
3708	63	772	WP300UFPSB001
377	65	1,012	WP300UFPSB001
3717	134	1,129	WP300UFPSB001
3717B	146	1,178	WP300UFPSB001
305 / 305BA	167[a]	1,560	WP300UFPSB001
305B	39[a]	178	WP305B001
333	18[a]	69	WP300UFPSB001

[a] Waste loadout for this building was not completed by September 30, 2006.

6.0 OCCUPATIONAL EXPOSURES

6.1 PERSONNEL INJURIES

Washington Closure Hanford personnel worked a total of approximately 41,945 hours (manual and nonmanual, including subcontractors) on the 300 Area D4 project with no Occupational Safety and Health Administration recordable injuries and no lost workday cases.

6.2 PERSONNEL RADIOLOGICAL EXPOSURES

No clothing or skin contamination incidents occurred during D4 of the nine 300 Area buildings. In addition, the "as low as reasonably achievable" (ALARA) goal of 0 person-mrem was achieved. All boundary air sample results were below procedural action levels for the duration of the project.

7.0 REFERENCES

29 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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