

FACILITY STATUS CHANGE FORM

Date Submitted: April 14, 2011 Originator: Chris Strand Phone: 509.554.2720	Area: 300 Area Facility ID: 321 Complex & 3718S Building Action Memorandum: Action Memorandum #3	Control #: D4-300-039
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This form documents agreement among the parties listed below on the status of the facility D&D operations and the disposition of underlying soil in accordance with the applicable regulatory decision documents.

Section 1: Facility Status

- All D4 operations required by action memo complete.
- D4 operations required by action memo partially complete, remaining operations deferred.

Description of Completed Activities and Current Conditions:

Deactivation: Utility isolations were performed on the facility prior to beginning facility decontamination.

The following hazardous materials were removed prior to facility demolition: oils, asbestos containing material, grease, mercury, lead, freon, and miscellaneous construction materials. Hazardous material removal and waste disposition was performed in accordance with Removal Action Work for 300 Area Facilities, DOE/RL-2004-77, Revision 2 (RAWP). Fixative was applied to the inside of the building to lock down any remaining chemical and radiological contamination prior to demolition.

Demolition: Demolition of the 3718S Building (above-grade structure) was completed in November of 2007, with demolition of the 321 Complex (above-grade structures) being completed in February of 2009. The building debris were removed and disposed of at ERDF. Due to the facility histories, the demolition was performed under Radiological and Industrial Hygiene controls.

Description of Deferral (as applicable):

The foundation slab and basement remain for the 321 Building, and the foundation slabs were left for the 321B, 321C, and 321D Buildings, which comprise the 321 Complex. The foundation slab was left for the 3718S Building. The, at and below-grade structures are located directly above and adjacent to waste site UPR-300-4 and waste site UPR-300-18 is located immediately to the south. Below-grade structures are being addressed by Field Remediation (FR) during the 300-FF-2 remedial action. No pre- or post-demo GPS or GPERS surveys were performed by D4 as the site remained posted as a Contamination Area (CA) and below-grade structures are being removed by FR.

Section 2: Underlying Soil Status

- No waste site(s) present. No additional actions anticipated.
- Documented waste site(s) present. Cleanup and closeout to be addressed under Record of Decision.
- Potential waste site discovered during D4 operations. Waste site identification number <to be> assigned.
 Cleanup and closeout to be addressed under Record of Decision.

Description of Current/As-Left Conditions:

All building structures were removed with the exception of the 321 basement and balance of 321 Complex slabs and the 3718S slab. Approximately 100 cubic meters of fill was introduced to the 321 basement floor. The remainder of back-fill was not performed at the request of Field Remediation and in consultation with the U.S. Environmental Protection Agency. The balance of structures remained "as is" following demolition (reference attachment 2, project photographs).

Identification of Documented Waste Site(s) or Nature of Potential Waste Site Discovery (as applicable):

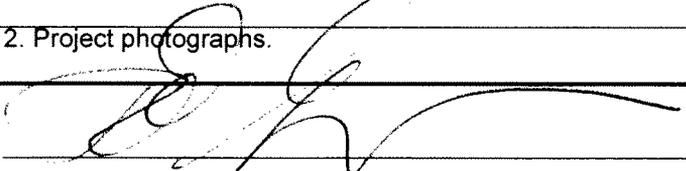
Reference Attachment 2.

Section 3: List of Attachments

1. Facility Information (Building history, characterization and identified waste sites).

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2. Project photographs.

	
DOE-RL <i>Larry Gadbois</i>	Date <i>4/12/11</i>
Lead Regulator <input checked="" type="checkbox"/> EPA <input type="checkbox"/> Ecology	Date <i>April 13, 2011</i>

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Attachment 1: Facility Information

Building History:

The 321 Cold Chemical Semi-Works 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 pilot plant systems for the Fast Flux Test Facility (FFTF Reactor) project. Former Tank Farms 1 and 2 on the south side of the complex were replaced with the 321B Test Loop Facility and the 321C Pump House, respectively. The 321 Maintenance shop on the east side of the complex was replaced with the 321D Seismic Facility. A battery room annex and an air conditioning annex was installed on the west side of the 321 Building. The nominal footprint for the complex was 45 by 50 m (148 by 164 ft), and except for a 10.7 m (35 ft) tower in the southeast quadrant, the height of the complex was 5.5 m (18 ft). The 321 Complex as a whole was classified as a Type II facility (contaminated by site operations and processes) due to residual radioactive contamination left by operations prior to 1967 that represented a potential for a release to the environment during D4 activities.

The 3717S Building, originally known as the 352D Electrical Substation, was constructed in 1965 as an automatic electrical distribution substation for the 321 Complex's FFTF support mission. It was a 12 m (40 ft) long by 6.1 m (20ft) wide metal building with a peaked roof, doors at the north and south ends, and rested on a concrete slab. There are no drain lines from the facility. In 1998, its electrical distribution system was removed, and the building reallocated for storing chemicals and renamed the 3718S Storage Building. It received chemicals from the 326 Building for storage. A pre-demolition photograph is shown in attached 2.

Building Characterization:

Table 1 summarizes the industrial hygiene, radiological control, and asbestos samples collected in the 321 Complex and 3718S Building.

Table 2 summarizes the contaminants of concern for facility demolition and the associated determination of no impact to the soil.

Identification of Documented Waste Sites:

Associated and/or adjacent waste sites are provided in Table 3.

Table 1. Summary of Samples/Surveys Collect for 321 Complex and /3718S.

Type	Building(s)	Date	Documented In	Summary of Results
Pre-Demolition				
Rad Scoping	321 Building	Nov 1997	CCN126599	Interior: 400,000 Exterior: 200,000*
	321 Complex	Apr 2007	RSR-300PS-07-0837	Building exterior readings below method detection limits
	321 Building (basement)	Sep 2007	RSR-300PS-07-1924	Readings below method detection limits
IH Baseline	321 Building	Apr 2007	CCN133232 (Be, metals)	No Be hazards, but respiratory protection needed for metals
	3718S Building	Apr 2007	CCN133777; CCN 144808 (Be, metals)	No Be hazards, but respiratory protection needed for metals
IH Asbestos	321 Complex	May 2007	CCN133645	ACM present
	3718S Building	Feb 2007	CCN132417	Window putty. No ACM detected
Post Demolition				
Rad/RBA Downposting	3718S Building	Nov 2007	RSR-300PS-07-2747	Readings below method detection limits
	321 Complex	Apr 2010	RSR-300PS-10-1218	Below method detection limits; partially downposted CA around 321
IH	321 Complex		CCN145967	No IH hazards identified
*Maximum reading, dpm/100cm ² Beta-Gamma fixed contamination				

Table 2. Contaminants of Concern for Facility Demolition

Contaminant of Concern	Management Practice
Radionuclides	Due to the facility history, the demolition was performed under radiological controls. Following demolition and load-out the area was surveyed and downposted with the exception of the 321 Complex footprint, which remains a contamination area. No GPERs survey was performed as the entire 321 Complex and 3718S footprint area is subject to remediation (Waste Sites UPR-300-004 and UPR-300-018).
Beryllium	IH characterization sampling determined Be not to be present in any of the buildings.
Asbestos	Demolition was performed in accordance with 40 CFR 61.145 (c) and 40 CFR 61.150
Lead	Lead was removed from buildings prior to demolition.

Table 3: Identification of Documented Waste Sites

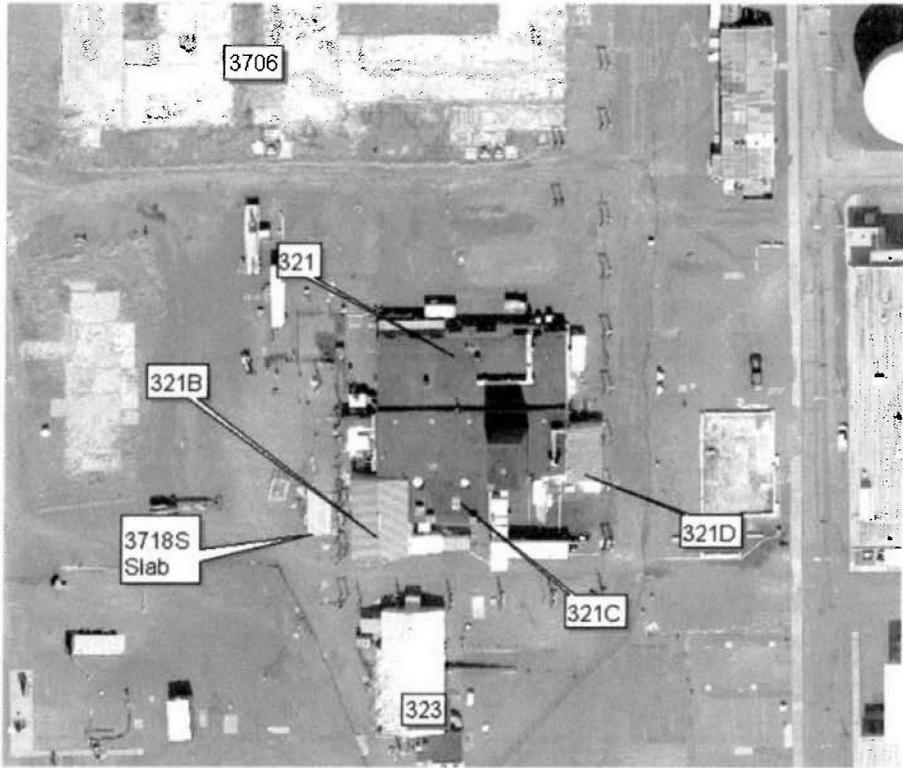
Site No.	Description	Status
300 SSS	300 Area Sanitary Sewer System	The underground pipelines from the 321 Complex to this active system were physically isolated prior to demolition.
300-15	300 Area Process Sewer System	The underground pipelines from the 321 Complex to this active system were physically isolated prior to demolition.
300-81	Injection well for 321 Building Steam Condensate	This inactive well on the NW corner of the 321 Building was disturbed by demolition activities, but not removed.
300-82	Injection well for 321 Building Steam Condensate	This inactive well between the 321 Complex and 3718S Building was disturbed by demolition activities, but not removed.
300-83	Injection well for 321 Building Steam Condensate	This inactive well on the south wall of the 321 Building was disturbed by demolition activities, but not removed.
300-84	Valve pit for water line to 321 Building	This inactive underground caisson on the west side of the 321 Building was disturbed by demolition activities, but not removed.
300-92	Injection well for 321 Building stormwater runoff	This inactive well on the south side of the 321 Building was disturbed by demolition activities, but not removed.
UPR-300-4	Contaminated soil beneath the 321 Complex and the 3718S Building sites	None of the contaminated soil associated with this site was removed.
UPR-300-18	Potentially contaminated soil just south of 321 Building	This site, located beneath the 321B/C foundations, was not disturbed.

Anomalies Discovered During Demolition:

No anomalies were discovered during demolition of either the 321 Complex or the 3718S Building.

Attachment 2: Project Photographs.

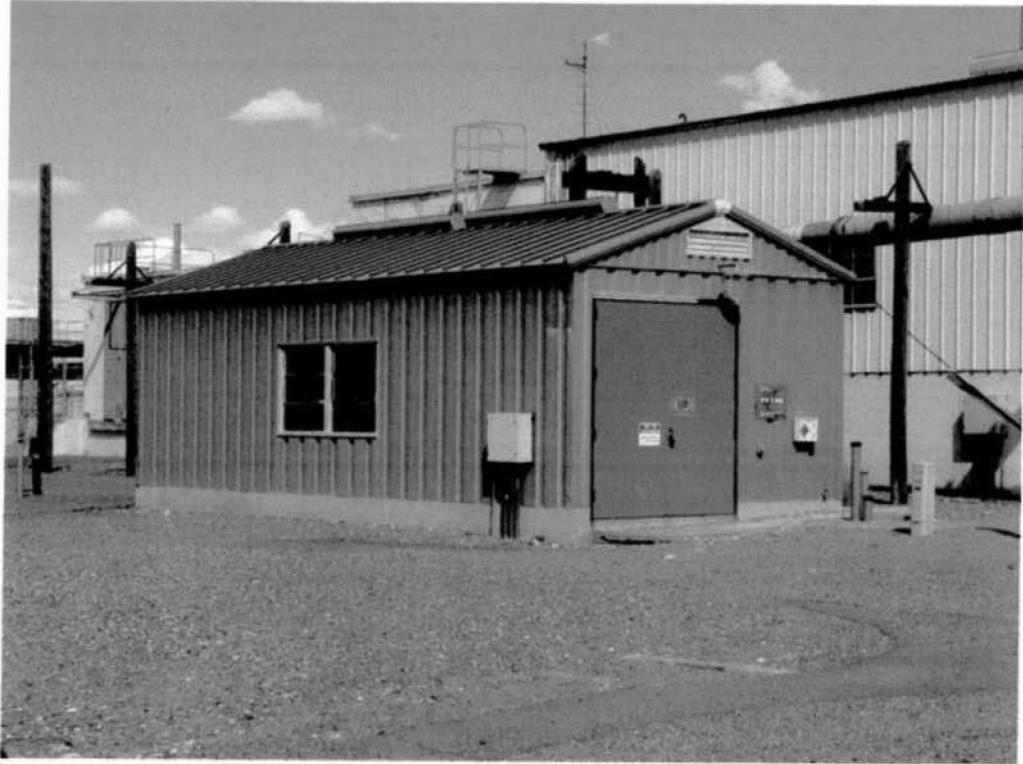
The 321 Complex, Pre-Demolition, and 3718S Building Slab, April 2008



321 Complex, Pre-Demolition



3718S Building, Pre-Demolition



321 Complex and 3718S Building Slabs, Post-Demolition

