

## FACILITY STATUS CHANGE FORM

<b>Date Submitted:</b> Apr 28, 2008 <b>Originator:</b> M. L. Proctor <b>Phone:</b> 521-9622	<b>Area:</b> 300 <b>Facility ID:</b> 3706/3706A <b>Action Memorandum:</b> #1 for the 300 Area	<b>Control #:</b> D4-300-006
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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 facilities prior to beginning facility decontamination.

Decontamination and Decommissioning: The following hazardous materials were removed prior to facility demolition: oils, grease, asbestos-containing material, beryllium, mercury, Freon, and polychlorinated biphenyls. Hazardous material removal and waste disposition was performed in accordance with *Removal Action Work Plan #1 for the 300 Area*, DOE/RL-2004-77, Revision 1 (RAWP). Some Class II non-friable asbestos-containing material (flooring, roof material, and a small amount of inaccessible transite) was left in place to be removed during demolition, as described in Section 2.1.4 of the RAWP. Fixative (paint) was applied to the inside of the buildings to lock down any remaining contamination prior to demolition.

Demolition: Demolition of the above-grade structure was completed in June 2007. Due to the facility history, the demolition was performed under radiological and asbestos controls. The building debris was removed and disposed at ERDF. The contaminants of concern remaining in the facilities during demolition were radionuclides, metals, asbestos (Class II non-friable), and beryllium.

#### Description of Deferral (as applicable):

The 3706 and 3706A foundations and any potential soil excavation will be deferred to the 300-46 remedial action. The foundation is located directly above the 300-46 waste site. Removal of the foundation prior to waste site remediation could result in potential exposure of contaminants from the underlying soil.

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### 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.

EDMC

#### Description of Current/As-Left Conditions:

The 3706 and 3706A foundations are currently posted as radiological control areas.

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

300-35: This underground 300 gallon diesel fuel storage tank was deactivated before May 1988 and is a rejected WIDS site. The tank was used to support emergency generator operations for heating, ventilation, and air conditioning within the 3706A building. It is expected that this tank will be addressed with the below-grade and adjacent waste sites.

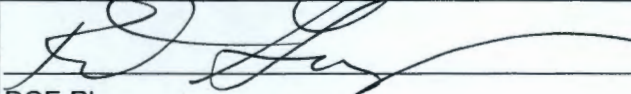

300-46: This 300-FF-2 waste site addresses soil contamination surrounding and underlying the 3706 Building as a result of operations and associated spills and releases. The scope of 300-46 includes 21 (WIDS 300-131 through 300-150 and 300-156)

# FACILITY STATUS CHANGE FORM

miscellaneous streams/steam condensate french drains or dry wells that must be dispositioned in accordance with WAC-173-216/218. All drains were plugged prior to facility demolition.

### Section 3: List of Attachments

- 1. Facility information (building history and characterization)
- 2. Asbestos inspection results
- 3. Project photographs

 _____ DOE-RL	4/28/08 _____ Date
 _____ Lead Regulator	5-8-2008 _____ Date
<input checked="" type="checkbox"/> EPA <input type="checkbox"/> Ecology	

#### DISTRIBUTION:

- EPA: Alicia Boyd, B1-46
- Ecology: Rick Bond, H0-57
- DOE: Rudy Guercia, A3-04
- Document Control, H0-30
- Administrative Record, H6-08

- SIS Coordinator: Linda Dietz, H4-22
- D4 EPL: Megan Proctor, L1-07
- Sample Design/Cleanup Verification: Jason Capron, H4-23
- FR Engineering: Rich Carlson, X4-08
- FR EPL: Jim Golden, X2-07

## Attachment 1: Facility Information

**Building History:**

The 3706 Building was constructed in 1943 and housed the original radiochemistry and radiometallurgy laboratory for the Hanford Engineer Works. Its original mission was to perform small-scale experiments in the development of fuel reprocessing technologies that were implemented in the 200 Area. In 1954, the 3706 Building underwent a major decontamination and remodeling effort in which many of the laboratories were converted into office space. During the 1970's and 1980's, additional minor remodeling took place as all laboratory work was phased out. By the late 1980's the building was used for graphics, photography, mail, duplicating, publications, word processing, microfilming, document processing, central files, and first aid.

The 3706A Building housed HVAC, vacuum pump, electrical distribution panels, and other support equipment for the main 3706 Building.

**Building Characterization:**

Table 1: Summary of Scoping Samples Collected

Type	Quantity	Results	Method Detection Limits
Radiological Scoping surveys	156	3 - Beta-gamma > 1,000 removable /5,000 fixed	Beta-gamma - 1,000 removable /5,000 fixed (dmp/100 cm <sup>2</sup> )
Industrial Hygiene Scoping Surveys	123 wipe samples	Beryllium - 11 > 0.2 ug/100cm <sup>2</sup>	0.1 ug/100 cm <sup>2</sup>

Table 2: Summary of Characterization Samples Collected at 3706/3706A

Sample Description and Location	Results	Required Detection Limit <sup>1</sup>	HEIS #
Building Trench (Liquid)	Aluminum - 650 µg/L	50 µg/L	J124F9, J124H0
	Antimony - 107 µg/L	60 µg/L	
	Barium - 54.1 µg/L	20 µg/L	
	Calcium - 69100 µg/L	1000 µg/L	
	Chloride - 23500 µg/L	200 µg/L	
	Chromium - 14.3 µg/L	10 µg/L	
	Copper - 463 µg/L	10 µg/L	
	Iron - 3570 µg/L	50 µg/L	
	Magnesium - 11400 µg/L	750 µg/L	
	Manganese - 54.2 µg/L	5 µg/L	
	Nitrate - 100000 µg/L	250 µg/L	
	Potassium - 14500 µg/L	4000 µg/L	
	Silver - 463 µg/L	10 µg/L	
	Silica - 25700 µg/L	20 µg/L	
	Sodium - 46300 µg/L	500 µg/L	
	Sulfate - 126000 µg/L	500 µg/L	
	Zinc - 475 µg/L	10 µg/L	
Gross Alpha - 50.3 pCi/g	3.5 pCi/g		
Gross Beta - 35.8 pCi/g	2.8 pCi/g		
Technetium 99 - 27.1 pCi/g	6 pCi/g		
Uranium 233/234 - 29.6 pCi/g <sup>2</sup>	0.84 pCi/g		
Uranium 235 - 4.11 pCi/g <sup>2</sup>	0.54 pCi/g		
Uranium 238 - 19.7 pCi/g <sup>2</sup>	0.84 pCi/g		
Soot From Press Exhauster Filter Housing (Solid)	Cadmium - 11.1 mg/kg	0.5 mg/kg	J12781
	Lead - 276 mg/kg	5 mg/kg	
	Radium 226 - 48.2 pCi/g	11.1 pCi/g	
	Thorium 234 - 37.9 pCi/g <sup>2</sup>	6.97 pCi/g	
	Uranium 235 - 2.98 pCi/g	0.69 pCi/g	
Resin Tank (Liquid)	Barium - 555 µg/L	20 µg/L	J14K82
	Gross Alpha - 7.03 pCi/g	4 pCi/g	

Sample Description and Location	Results	Required Detection Limit <sup>1</sup>	HEIS #
	Gross Beta – 6.74 pCi/g Cobalt 60 – 0.173 pCi/g Europium 152 – 0.858 pCi/g Potassium 40 – 9.55 pCi/g <sup>2</sup> Radium 226 – 0.563 pCi/g	5.3 pCi/g 0.057 pCi/g 0.14 pCi/g 2.55 pCi/g 0.091 pCi/g	
Concrete Floor (Solid)	Potassium 40 – 13.2 pCi/g <sup>2</sup> Thorium 234 – 419 pCi/g <sup>2</sup> Uranium 235 – 31.9 pCi/g	2.63 pCi/g 4.29 pCi/g 0.489 pCi/g	J12L56-J12L59
Potential Asbestos Containing Materials (Solid)	See Attachment 2	<1 wt%	See Attachment 2

## Notes:

<sup>1</sup> Required Detection Limits listed for nonradiological constituents are in accordance with the 300 Area D4 Waste Sampling and Analysis Plan (DOE/RL-2004-84, Revision 1), unless otherwise noted. Required Detection Limits listed for radiological constituents are the actual Minimum Detectable Activity (MDA) recorded.

<sup>2</sup> Constituent not listed as a required analyte in the 300 Area D4 Waste Sampling and Analysis Plan (DOE/RL-2004-84, Revision 1).

**Table 3. Contaminants of Concern for Facility Demolition**

Contaminant of Concern	Determination of no impact to the soil
Radionuclides	Radiological contamination fixative was applied to the 3706 and 3706A Buildings prior to demolition as a precautionary measure because of the facility history. The foundation has been surveyed and is posted as necessary.
Beryllium	Contamination fixative was applied to the building interior prior to demolition. Foundation has been surveyed and is posted as necessary.
Class II non-friable Asbestos	Demolition was performed in accordance with 40 CFR 61.145 (c) and 40 CFR 61.150

## Attachment 2: Asbestos Inspection Results

<b>Asbestos Sample Summary Building 3706/3706A</b>				
<b>Sample Batch Number</b>	<b>HEIS Sample Number</b>	<b>Sample Description</b>	<b>Sample Location</b>	<b>Percent Asbestos (lab results)</b>
MM-1	BOL001	Light brown vinyl sheeting	Rooms 3, 22, 121, 210C	<1%
MM-2	BOK594	White 12" by 12" floor tile	Throughout building	<1%
MM-3	BOL042	Gray 9" by 9" floor tile	Closet at south end of room 121	<1%
MM-4	BOL043	Blue-green floor tile mastic	Throughout building	<1%
MM-5	BOL045	Brown floor tile	Rooms 228 and 232	2-4% Chrysotile
MM-5	BOL046	Brown floor tile	Rooms 228 and 232	5-10% Chrysotile
MM-6	BOL047	Black 9" by 9" floor tile	Rooms 209A and 232	2-4% Chrysotile
MM-7	BOL048	Tan floor tile	Room 206	<1%
MM-8	BOL0R4	Exterior transite shingles		10-20% Chrysotile
MM-9	BOL0R5	Interior transite panels	Throughout building	1-2% Chrysotile
MM-9	BOL0R7	Interior transite panels	Throughout building	10-20% Chrysotile
MM-10	BOL273	Blown-in insulation	3706 attic	<1%
MM-10	BOL275	Blown-in insulation	3706 attic	<1%
MM-10	BOL277	Blown-in insulation	3706 attic	<1%
MM-11	BOL0R8	Cove mastic	Throughout building	<1%
MM-12	BOL0R9	Sheetrock joint compound	Throughout building	<1%
MM-13	BOL100	Window putty	Throughout building	<1%
MM-13	BOL101	Window putty	Throughout building	<1%
MM-14	BOL108	Black laboratory-type table in kitchen	Room 212	<1%
MM-15	J124W4	Outer fabric layer on ventilation system	West air mover on north side of 3706	10-20% Chrysotile
MM-15	J124W6	Outer fabric layer on ventilation system	West air mover on north side of 3706	10-20% Chrysotile
TSI-1	BOK9T5	White duct insulation	3706 attic	10-20% Chryotile 4-8% Amosite
TSI-1	BOK9T6	White duct insulation	3706 attic	20-30% Chryotile 4-8% Amosite
TSI-1	BOK9T7	White duct insulation	3706 attic	40-50% Chryotile 4-8% Amosite
TSI-2	BOL049	Asbestos insulation on pipe, including elbows	Throughout building	5-10% Chrysotile 4-8% Amosite
TSI-2	BOL051	Asbestos insulation on pipe, including elbows	Throughout building	5-10% Chrysotile 2-4% Amosite
TSI-2	BOL053	Asbestos insulation on pipe, including elbows	Throughout building	15-25% Chrysotile 8-15% Amosite
TSI-2	BOL055	Asbestos insulation on pipe, including elbows	Throughout building	<1%
TSI-2	BOL057	Asbestos insulation on pipe, including elbows	Throughout building	<1%
TSI-2	BOL059	Asbestos insulation on pipe, including elbows	Throughout building	<1%
TSI-2	BOL061	Asbestos insulation on pipe, including elbows	Throughout building	<1%
TSI-2	BOL063	Asbestos insulation on pipe, including elbows	Throughout building	<1%

### Asbestos Sample Summary Building 3706/3706A

Sample Batch Number	HEIS Sample Number	Sample Description	Sample Location	Percent Asbestos (lab results)
TSI-2	B0L249	Asbestos insulation on pipe, including elbows	Throughout building	10-20% Chrysotile
TSI-2	B0L251	Asbestos insulation on pipe, including elbows	Throughout building	20-30% Chrysotile
TSI-2	B0L253	Asbestos insulation on pipe, including elbows	Throughout building	20-30% Chrysotile
TSI-2	B0L255	Asbestos insulation on pipe, including elbows	Throughout building	15-20% Chrysotile 5-10% Amosite
TSI-2	B0L257	Asbestos insulation on pipe, including elbows	Throughout building	5-10% Chrysotile 5-10% Amosite
TSI-2	B0L259	Asbestos insulation on pipe, including elbows	Throughout building	4-8% Amosite
TSI-2	B0L261	Asbestos insulation on pipe, including elbows	Throughout building	<1%
TSI-2	B0L263	Asbestos insulation on pipe, including elbows	Throughout building	<1%
TSI-2	B0L265	Asbestos insulation on pipe, including elbows	Throughout building	<1%
TSI-2	B0L289	Asbestos insulation on pipe, including elbows	Throughout building	10-20% Chrysotile
TSI-2	B0L291	Asbestos insulation on pipe, including elbows	Throughout building	5-10% Chrysotile
TSI-2	B0L293	Asbestos insulation on pipe, including elbows	Throughout building	10-20% Chrysotile
TSI-2	B0L050	Asbestos insulation on pipe, including elbows	Throughout building	5-10% Chrysotile 2-4% Amosite
TSI-2	B0L052	Asbestos insulation on pipe, including elbows	Throughout building	<1%
TSI-2	B0L054	Asbestos insulation on pipe, including elbows	Throughout building	20-30% Chrysotile 5-10% Amosite
TSI-2	B0K9R5	Asbestos insulation on pipe, including elbows	Throughout building	20-30% Chrysotile
TSI-2	B0K9R6	Asbestos insulation on pipe, including elbows	Throughout building	20-30% Chrysotile
TSI-2	B0K9R7	Asbestos insulation on pipe, including elbows	Throughout building	20-30% Chrysotile
TSI-2	B0K9R8	Asbestos insulation on pipe, including elbows	Throughout building	40-60% Chrysotile 4-8% Amosite
TSI-2	B0K9R9	Asbestos insulation on pipe, including elbows	Throughout building	40-60% Chrysotile 2-4% Amosite
TSI-2	B0K9T0	Asbestos insulation on pipe, including elbows	Throughout building	40-60% Chrysotile 2-4% Amosite
TSI-2	B0K9T8	Asbestos insulation on pipe, including elbows	Throughout building	<1%
TSI-2	B0K9T9	Asbestos insulation on pipe, including elbows	Throughout building	30-40% Chrysotile 4-8% Amosite
TSI-2	B0K9V0	Asbestos insulation on pipe, including elbows	Throughout building	40-50% Chrysotile 4-8% Amosite
TSI-2	B0K9V1	Asbestos insulation on pipe, including elbows	Throughout building	25-35% Chrysotile 2-4% Amosite
TSI-2	B0K9V2	Asbestos insulation on pipe, including elbows	Throughout building	20-30% Chrysotile
TSI-2	B0K9V3	Asbestos insulation on pipe, including elbows	Throughout building	5-10% Chrysotile

**Asbestos Sample Summary**  
**Building 3706/3706A**

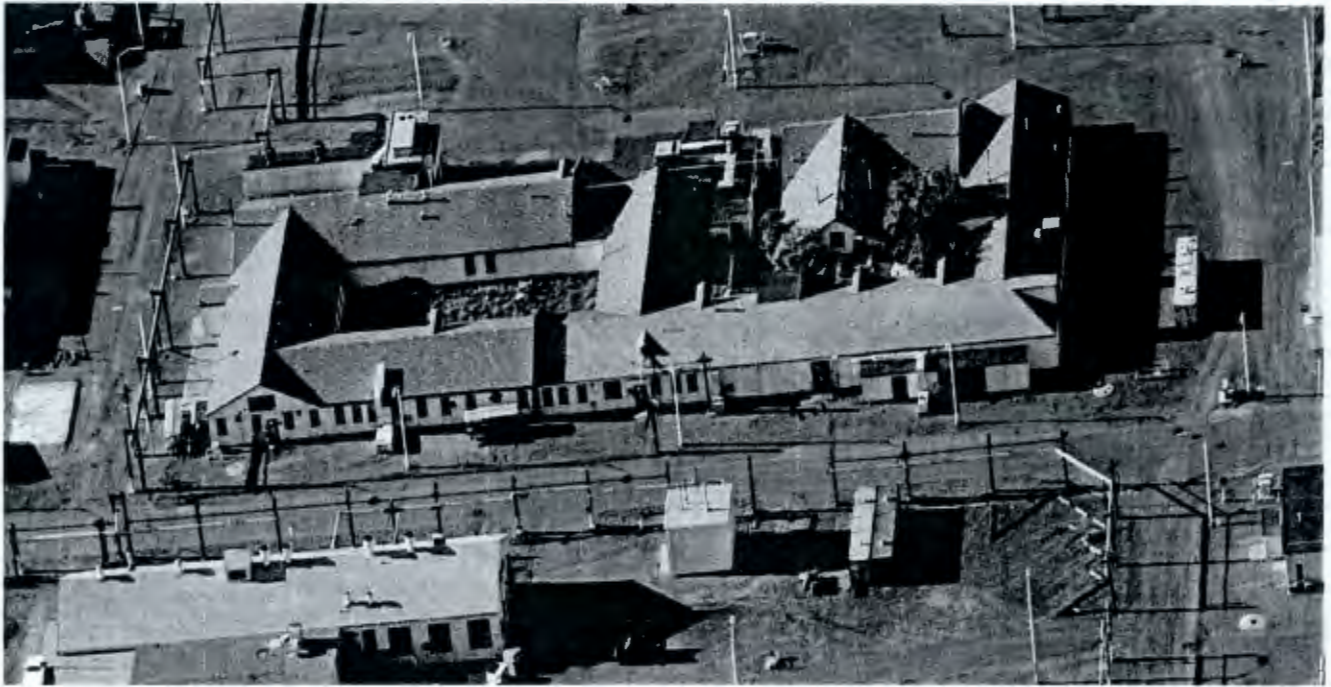
Sample Batch Number	HEIS Sample Number	Sample Description	Sample Location	Percent Asbestos (lab results)
TSI-3	B0L243	Insulation on air conditioning unit	3706A	15-25% Chrysotile 5-10% Amosite
TSI-3	B0L245	Insulation on air conditioning unit	3706A	20-30% Chrysotile 10-20% Amosite
TSI-3	B0L247	Insulation on air conditioning unit	3706A	20-30% Chrysotile 5-10% Amosite
TSI-4	B0L061	White cloth on air conditioning unit	3706	<1%
TSI-4	B0L063	White cloth on air conditioning unit	3706	<1%
TSI-5	B0L102	Duct insulation	On roof above room 210C	20-30% Chrysotile
TSI-5	B0L103	Duct insulation	On roof above room 210C	20-30% Chrysotile
TSI-5	B0L104	Duct insulation	On roof above room 210C	20-30% Chrysotile
TSI-5	B0L105	Duct insulation	On roof above room 210C	<1%
TSI-5	B0L106	Duct insulation	On roof above room 210C	<1%
TSI-5	B0L107	Duct insulation	On roof above room 210C	<1%
TSI-6	J124W7	Steam line elbows on north side of building	Near door # 07	<1%
TSI-6	J124W8	Steam line elbows on north side of building	West of door # 06	<1%
TSI-6	J124X2	Steam line elbows on north side of building	East of door # 06	<1%

**In-Process Asbestos Sample Summary  
Building 3706**

Sample Batch Number	HEIS Sample Number	Sample Description	Sample Location	Percent Asbestos (lab results)
MM-1	J12659	Sheetrock	Entry way ceiling near room 5	ND
MM-1	J12662	Sheetrock	Ceiling in room 205	ND
MM-1	J12664	Sheetrock	Ceiling in room 207	ND
MM-1	J13VW1	Sheetrock	Wall in room 22	ND
MM-2	J12660	Brown fiberboard w/ grey backing	Hallway ceiling near room 134	ND
MM-2	J13VW3	Brown fiberboard	Hallway wall near room 22	ND
MM-2	J13VW7	Brown fiberboard	Wall in room 102	ND
MM-3	J12661	Grey transite	Ceiling in room 122A	10-20% Chrysotile
MM-3	J12663	Grey transite	Ceiling in room 210	10-20% Chrysotile
MM-3	J12665	Grey transite	Ceiling in room 207	10-20% Chrysotile
MM-3	J12667	Grey transite	Ceiling in room 217	10-20% Chrysotile
MM-3	J12668	Grey transite	Ceiling in room 228	10-20% Chrysotile
MM-3	J13VW2	Grey transite	Hallway wall near room 22	10-20% Chrysotile
MM-3	J13VW4	Grey transite	Hallway wall near room 218	10-20% Chrysotile
MM-3	J13VW5	Grey transite	Hallway wall near room 224	10-20% Chrysotile
MM-3	J13VW6	Grey transite	Wall in room 102	10-20% Chrysotile
MM-3	J13VW8	Grey transite	Wall in room 117	10-20% Chrysotile
MM-3	J13VW9	Grey transite	Wall in room 122	10-20% Chrysotile
MM-4	J12666	Grey/white cotton-like insulation	Attic area above room 207	ND
MM-5	J13P89	Green/grey vermiculite-like insulation	Attic area on east end of building	ND
MM-6	J13P88	1' x 1' white, symmetrical hole design, ceiling tile	Ceiling in room 210C	ND
MM-7	J13P86	1' x 1' white, "worm hole" design, ceiling tile	Ceiling in room 22	ND
MM-7	J13P87	Mastic on ceiling tile sample # J13P86	Ceiling in room 22	ND
MM-8	J13VX1	1' x 1' grey w/ white paint, amorphous design, ceiling tile	3706	ND
MM-9	J13VX2	1' x 1' tan/orange w/ white paint, random hole design, ceiling tile	3706	ND
MM-10	J13VX3	1' x 1' grey w/ white paint, worm hole & small hole design, ceiling tile	3706	ND



Attachment 3: Project Photographs



Aerial Photo taken August 2005 showing live trees within western most courtyard.



View of 3706 Concrete Slab from the Northeast (May 2006)