Control #: D4-300-012

FACILITY STATUS CHANGE FORM

Date Submitted:	Area:	Control #:
Mar 17, 2009	300	D4-300-012
Originator:	**Facility ID:**	
David Warren	3720	
Phone:	**Action Memorandum:**	
554-9368	#1 for the 300 Area	

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.

Decontamination and Decommissioning: The following hazardous materials were removed prior to facility demolition: lead, glycol, oils, asbestos containing material, mercury, and Freon. 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). Fixative was applied to the inside of the building to lock down any remaining radiological and beryllium contamination prior to demolition.

Demolition: Demolition of the above-grade structure and majority of the foundation was completed in 2007. The building debris was removed and disposed at ERDF. The building slab was broken up, soils below the slab radiologically surveyed, with the slab rubble piled for later use as clean fill. Due to the facility history, the demolition was performed under radiological controls, and items with high levels of contamination were removed from the building. The contaminants of concern remaining in the facility during demolition were asbestos (Class II non-friable) and specific locations of fixed radiological contamination.

Description of Deferral (as applicable):

Final significant grading will be performed when Field Remediation work associated with the 313 Building Area has been completed.

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:

The area was surveyed clean and is not posted for radiological or industrial hygiene hazards. A portion of the west basement and below grade stem walls remain that will be addressed during final grading. No construction debris (e.g., paint chips, insulation) or soil staining was identified during the visual inspection of the excavated area. The related adjacent waste sites were not considered to be affected by the removal action.

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

300-1- connections to the 300 Area Process Sewer in each section of the 3720 building are as follows: H-3-21356 (northeast section), H-3-21357 (northwest section), H-3-21358 (southeast section), and H-3-21359 (southwest section).
300-SS- three sanitary sewer manholes located on the south side of the 3720 building.
Undocumented Injection/Reverse Well, Steam Condensate- Located on the west side of the 3720 building.

Section 3: List of Attachments

1. Facility information (building history and characterization)

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FACILITY STATUS CHANGE FORM

2. Project Photographs
3. Global Positioning Environmental Radiological Survey (GPERS)

DOE-RL — Date 3/23/09

Larry Gadbois — Date 3-23-09

Lead Regulator ☒ EPA ☐ Ecology

DISTRIBUTION:

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

SIS Coordinator: Sheri Harshberger, H4-22
D4 EPL: Chris Strand, L1-07
Sample Design/Cleanup Verification: Megan Proctor, H4-22
FR Engineering: Rich Carlson, X4-08
FR EPL: Darrin Faulk, L6-06

Attachment 1: Facility Information

Building History:

The 3720 Building was constructed in 1964 as the Consolidated Service Facility, which served as the Maintenance and Quality Control Laboratory for analytical chemistry support for the reactor fuels manufacturing plants. In 1971, the 3720 Building was transferred to PNNL as the Material Science Laboratory.

The 3720 Building was a metal frame structure on a concrete foundation and concrete slab floor. The exterior walls were steel panels with fiberglass insulation. The building had a concrete partial basement (southwest quadrant), a concrete block addition with a full basement (northwest end), and a covered storage area (southwest end). The sloped gable roof was tar and gravel over a corrugated sheet metal base. The building had electrical power, was steam heated, and had connections to both sanitary and process sewers.

The 3720 Building was deactivated and placed in "cold, dark, and dry status" by PNNL in December of 2003. There were 29 offices and 31 laboratories of various sizes in the building including several labs that had posted radioactive contamination areas, one lab that contained beryllium contamination, and at least two (2) labs that were used to process toxic and/or hazardous materials.

Building Characterization:

Table 1 summarizes the industrial hygiene, radiological control, and asbestos samples collected in the 3720 Building. Table 2 summarizes the contaminants of concern for facility demolition and the Management Practices implemented to minimize spread of those contaminants.

Table 1. Summary of Samples Collected

Type	Quantity	Method Detection Limits	Results
Radiological Scoping and Pre-Demolition surveys	25 Radiological Survey Reports	Beta-gamma – 1,000 removable/ 5,000fixed [a] Alpha – 20 removable/ 100 fixed [a]	Levels of fixed contamination ranged from less than detectable to a high of 4,000,000 Beta-gamma and 300,000 alpha. Levels of removable contamination ranged from less than detectable to a high of 24,000 Beta-gamma and 14,000 alpha.
Industrial Hygiene Scoping Surveys for Beryllium (Air and Wipe Samples)	204 wipe samples 14 Air Samples	Beryllium – Wipe Samples- 0.01 µg/100cm^2 Air Samples- 0.01 µg/sample	Nine Be wipe sample results were above the action level of 0.2 µg/100 cm^2 All air sample results were below the method's limit of detection
Industrial Hygiene Post Demolition Sampling for Beryllium (Bulk and Wipe Samples)	30 Bulk Samples 4 Wipe Samples	Beryllium – Bulk Samples- 0.02 µg/sample Wipe Samples- 0.01 µg/100cm^2	All thirty bulk samples were measured at levels below the local background release criterion of 1.81 µgram/gram. All four wipe samples were measured to have surface levels less than the action level of 0.2 µg/100 cm2

Type	Quantity	Method Detection Limits	Results
Radiological Post-Demolition and Downposting Surveys	19 Radiological Survey Reports	Beta-gamma – 1,000 removable/ 5,000fixed [a] Alpha – 20 removable/ 100 fixed [a]	All results were below method detection limits
Global Position Environmental Radiological Surveys (GPERS)	2 Surveys	N/A	Results of the Survey are listed in Attachment 3
Asbestos – Thermal System Insulation and Miscellaneous Material	77	<1% weight	58 - below detection limits 6 - less than 1% asbestos 13 - found to be at levels requiring removal

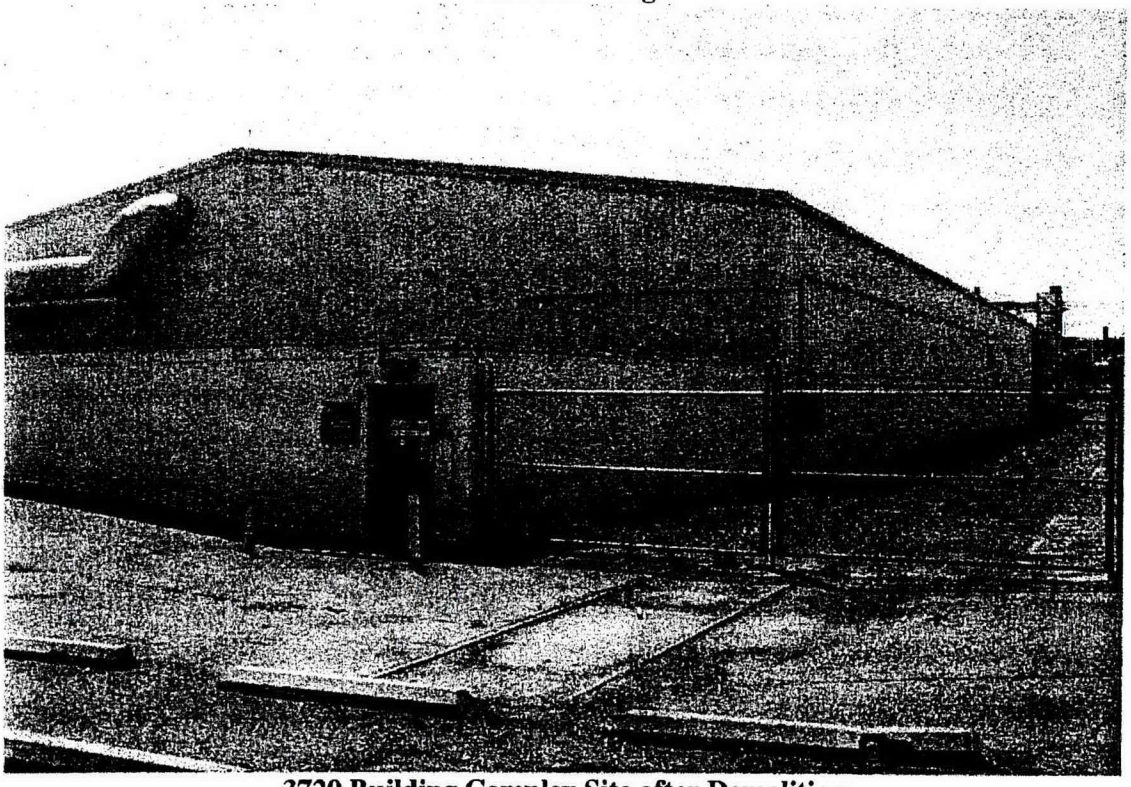
[a] – dpm/100 cm^2

Table 2. Contaminants of Concern for Facility Demolition

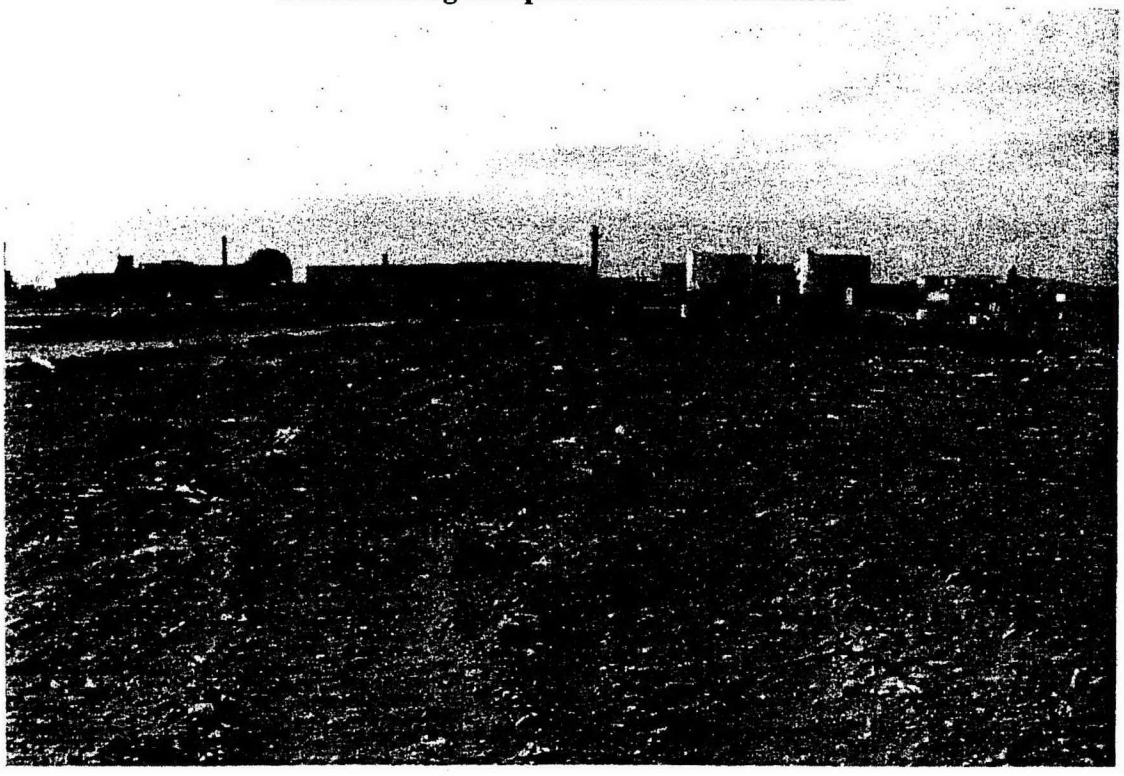
Contaminant of Concern	Management Practice
Radionuclides	Due to the facility history, the demolition was performed under radiological controls. After the building foundation was removed, the area was surveyed and downposted.
Beryllium	Building interior was locked down prior to demolition. Visual inspection of the demolition area was performed.
Class II non-friable Asbestos	Demolition was performed in accordance with 40 CFR 61.145 (c) and 40 CFR 61.150

Attachment 2: Project Photographs

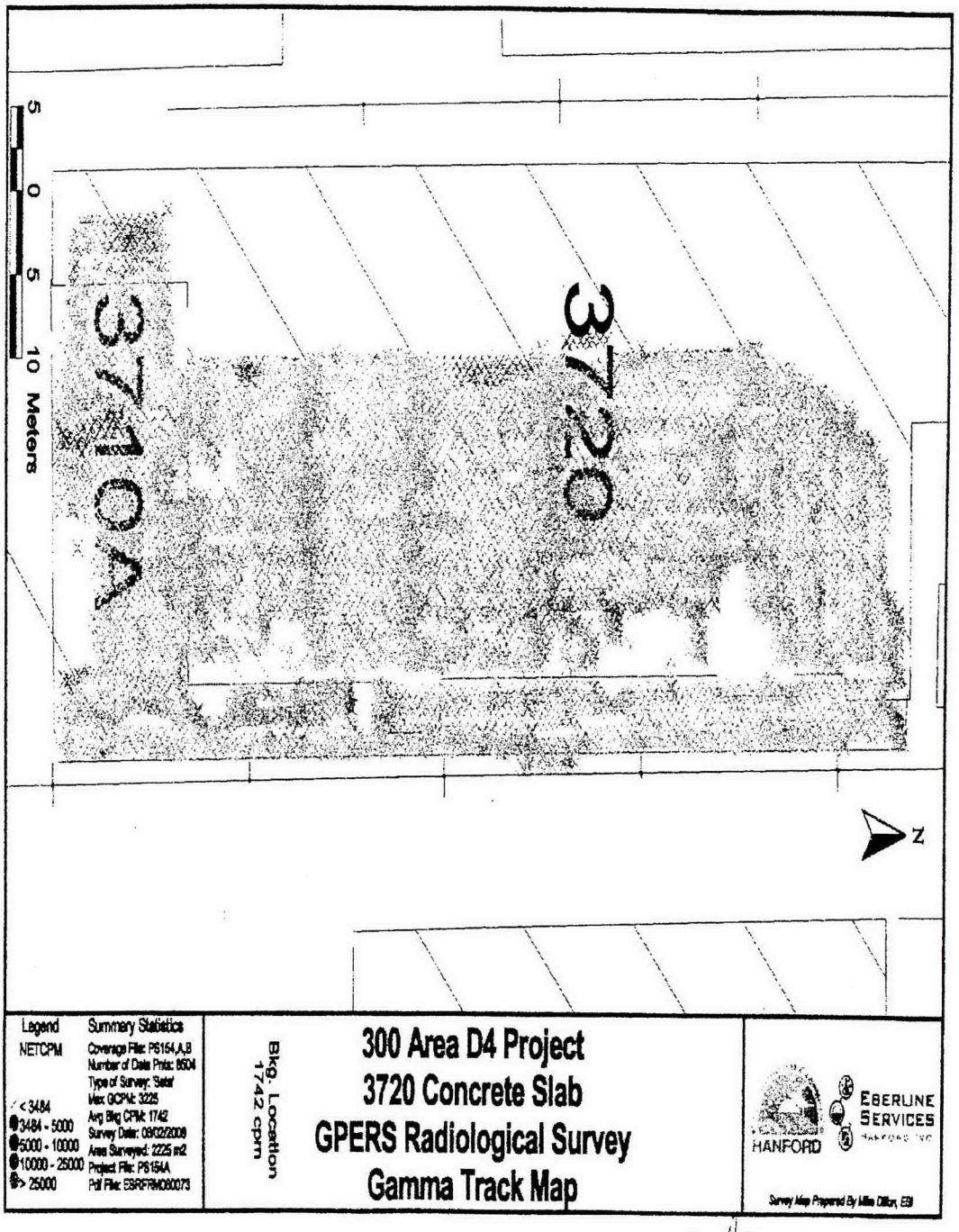
3720 Building



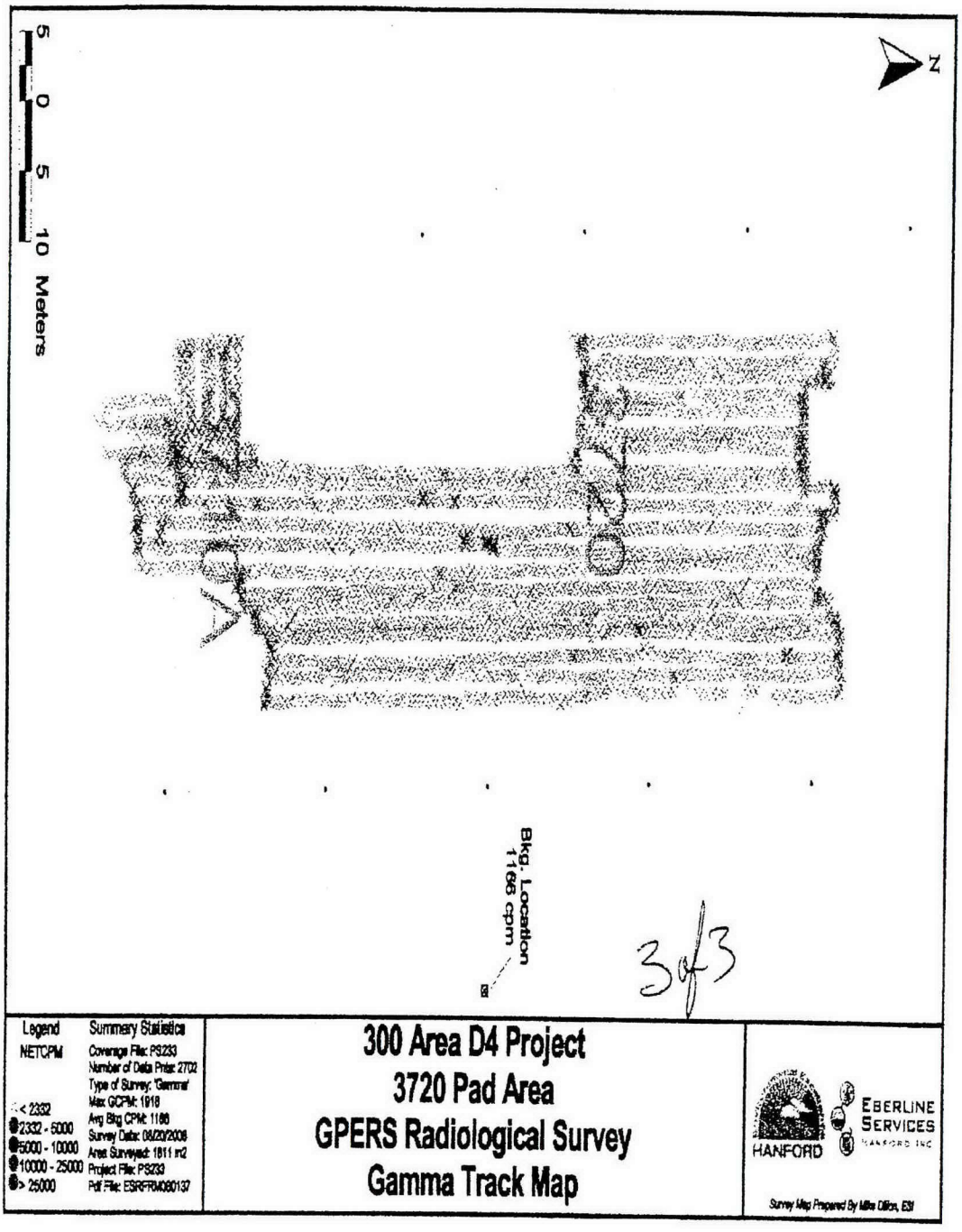
3720 Building Complex Site after Demolition



Attachment 3: Global Positioning Environmental Radiological Surveys (GPERs)



3 of 3


5 0 5 10 Meters
N
Bkg. Location
1166 cpm
3 of 3
Legend
NETCPM
< 2332
2332 - 5000
5000 - 10000
10000 - 25000
> 25000
Summary Statistics
Coverage File: PS233
Number of Data Pnts: 2702
Type of Survey: 'Gamma'
Max GCPM: 1918
Avg Bkg CPM: 1166
Survey Date: 06/20/2006
Area Surveyed: 1811 m2
Project File: PS233
Pdf File: ESRFRM060137
300 Area D4 Project
3720 Pad Area
GPERS Radiological Survey
Gamma Track Map
HANFORD
EBERLINE SERVICES
HANFORD INC
Survey Map Prepared By Mike Dillon, ESI