FACILITY STATUS CHANGE FORM

Date Submitted:	Area:	Control #:
July 10, 2013	300 Area	D4-300-040-1
Originator:	**Facility ID:**	
Chris Strand	323 Mechanical Properties Laboratory	
Phone:	**Action Memorandum:**	
554-2720	Action Memorandum #3	

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 materials, grease, mercury, freon, lead, and miscellaneous construction materials. Hazardous material removal and waste disposition were performed in accordance with the Removal Action Work Plan for 300 Area Facilities, DOE/RL-2004-77, Rev. 2. Fixative was applied to the inside of the building to lock down any remaining contamination prior to demolition.

Demolition: Demolition of the above-grade structures were completed in June of 2008. The building debris was removed and disposed of at ERDF. The demolition was performed under Radiological and Industrial Hygiene controls. The remaining below-grade structure, including 323 Tanks 1 through 4, were deferred to remediation of adjacent waste site UPR-300-4 (reference D4-300-040). The remaining below-grade structure and 323 Tanks 1 through 4 were demolished and removed during remediation of waste site UPR-300-4 in November of 2012.

Description of Deferral (as applicable):

Final backfill of the common 323/UPR-300-4 excavation will be performed following reclassification of UPR-300-4.

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:

A common excavation remains following demolition of the 323 below-grade structure and remediation of UPR-300-4. No industrial hygiene or radiological postings remain.

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

Waste site UPR-300-4 was located adjacent to the 323 Building. This waste site has undergone remediation and closure verification sampling and is awaiting reclassification and backfill. WIDS numbers 323 Tank 1, 323 Tank 2, 323 Tank 3, and 323 Tank 4, are being reclassified as interim rejected because they are not addressed in the 300-FFF-2 Interim Record of Decision, nor were they ever added. The tanks are being closed in accordance with Action Memoranda #3 for the 300 Area and revision 1 (D4-300-040-1) to this Facility Status Change Form.

Section 3: List of Attachments

1. Facility Information.
2. Project Photographs

FACILITY STATUS CHANGE FORM

3. GPERS Survey.
4. Waste Site Reclassification Forms 2012-106 through 2012-109.

DOE-RL	7/10/13 Date
Larry Gadbois Lead Regulator ☒ EPA ☐ Ecology	July 15 2013 Date

DISTRIBUTION:

EPA: Larry Gadbois, B1-46
Ecology: Rick Bond, HO-57
DOE: Rudy Guercia, A3-04
Document Control, H4-11
Administrative Record, H6-08 (300-FF-2 OU)

SIS Coordinator: Ben Cowin, H4-22
D4 EPL: Chris Strand, L4-45
Sample Design/Cleanup Verification:Theresa Howell, H4-22
FR Engineering: Eric Ison, L1-13
FR EPL: Chris Strand, L4-45

Attachment 1: Facility Information

Building History:

The 323 Mechanical Properties Laboratory building measured 40-feet (12 m) by 80-feet (24 m) by 12-feet (3.6 m) was constructed in 1959/1960 with an aluminum frame structure covered with corrugated aluminum sheet metal. This facility was built on top of the original 321 Tank Farm (323 Tanks 1 through 4). A ventilation system enclosure was located to the south, and gas cylinder enclosures were located on the west side of the building. The main building was divided into north and south areas. The north area was at grade and contained offices, a small machine shop, a change room and a lunch room. The south area was constructed 5-feet (1.5 m) below grade and contained the laboratory, including a hot cell that was built over the 321 Tank Farm, four 25,000-gallon underground storage tanks constructed in 1944. The floor of the laboratory was also the cover for a vault to access the tanks. At various times during its history, the facility supported waste vitrification development, FFTF components testing, and PNNL research.

Demolition of the above-grade structures were completed in June of 2008. 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. Demolition of the remaining below-grade structure, including 323 Tanks 1 through 4, was deferred to remediation of adjacent waste site UPR-300-4 (reference D4-300-040).

During characterization of the remaining below-grade structure, the four tanks were found to be filled with water. Following sampling, approximately 100,000 gallons of water in total were pumped from the four tanks and shipped to the 200 Area Effluent Treatment Facility for treatment and disposal.

The remaining below-grade structure, 323 Tanks 1 through 4, and process piping back to the 321 Building were demolished and removed during remediation of waste site UPR-300-4 in November of 2012.

323 Building Foundation and Tanks Characterization:

Table 1 summarizes the industrial hygiene, radiological control, and asbestos samples collected on facility components that were demolished. Note: reference D4-300-040 for initial characterization summary prior to above-grade demolition.

Table 1. Summary of Characterization Surveys at 323.

Type	Date	Documented In	Results Summary
Asbestos	September 5, 2012	CCN 167409	No samples collected. A review of as-built drawings determined ACM was present inside of the vault that contained the four tanks.
IH Surveys and Beryllium Characterization	December 12, 2012	BFA-323-2012-12-12 IHEA-323-12-002	Below-grade structure determined to Be free. COCs consisted primarily of metals, including mercury.
Radiological Surveys	June 2010	RSR-300PS-10-1399	Small fixed contamination on slab ~ 300K dpm/100 cm.
Radiological samples of tank water and heels	June 28, 2012 July 3, 2012 July 5, 2012 July 26, 2012 August 2, 2012	J1PTJ3 J1PVK2 J1PVL0 J1PWT4 J1PX32	Primary radionuclide COCs identified are uranium isotopes.

Associated WIDS sites:

300-15 process sewer segments remain in the area.

Waste Site UPR-300-4 was located adjacent to the former location of the 323 Building and has undergone remediation and closure verification sampling as part of the 300-FF-2 Operable Unit.

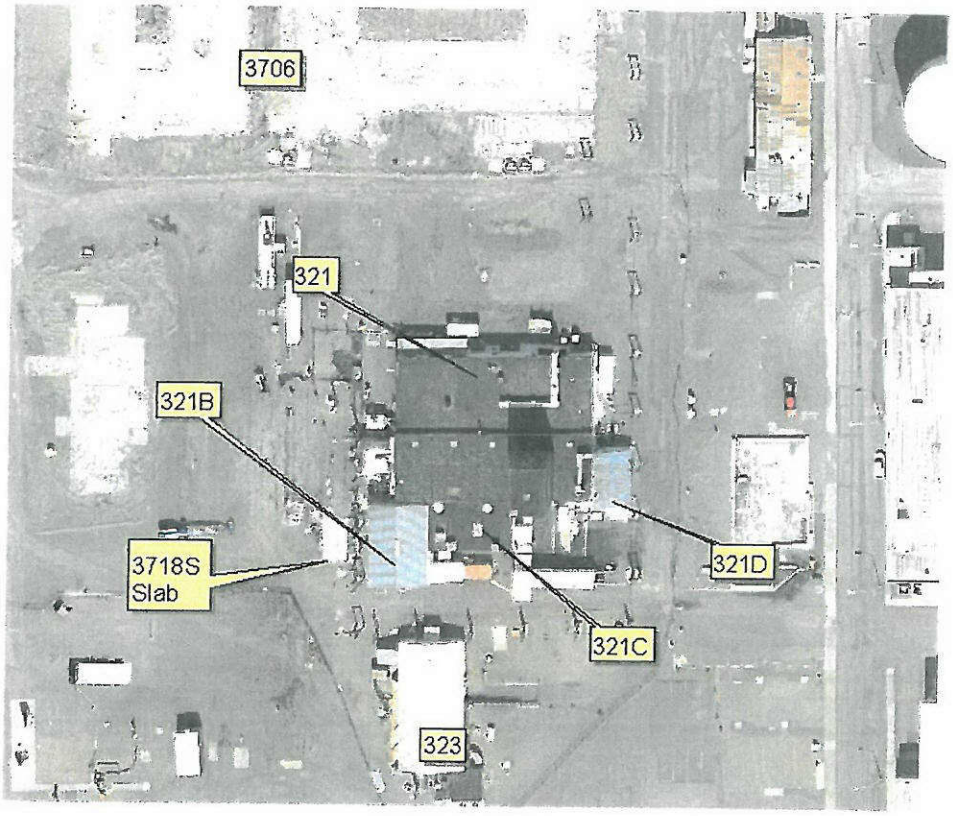
Anomalies Discovered During Demolition.

No anomalies were observed during the demolition of the 323 below-grade structure and tanks. In process and final GPERS surveys determined there was no release of contaminated liquids from the tanks themselves.

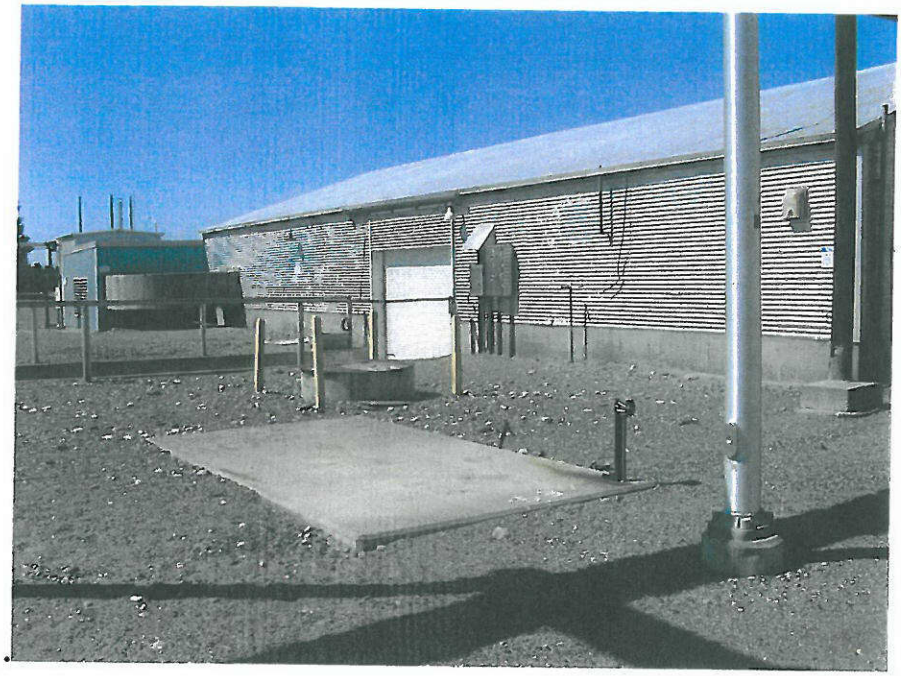
Soil beneath all 323 foundation displayed no visual evidence of staining or discoloration. GPERS surveys following below-grade demolition identified no contamination.

Attachment 2: Project Photographs

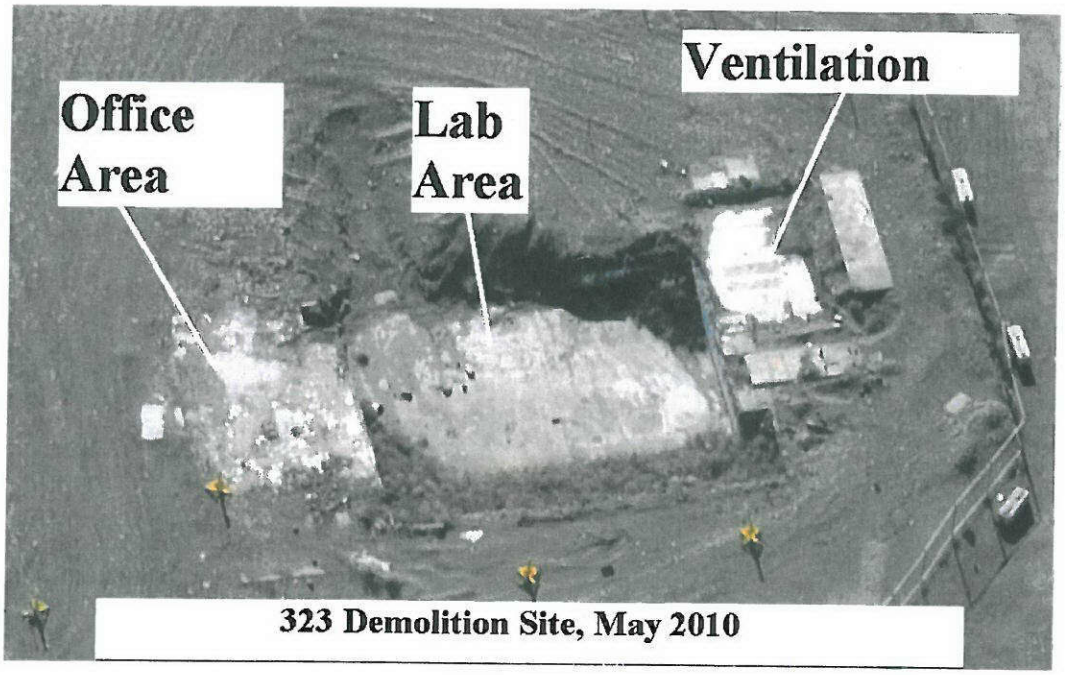
Photograph 1: Pre-demolition vertical aerial photograph of 321/232 Complex



Photograph 2. Looking southwest in May, 2008, before demolition



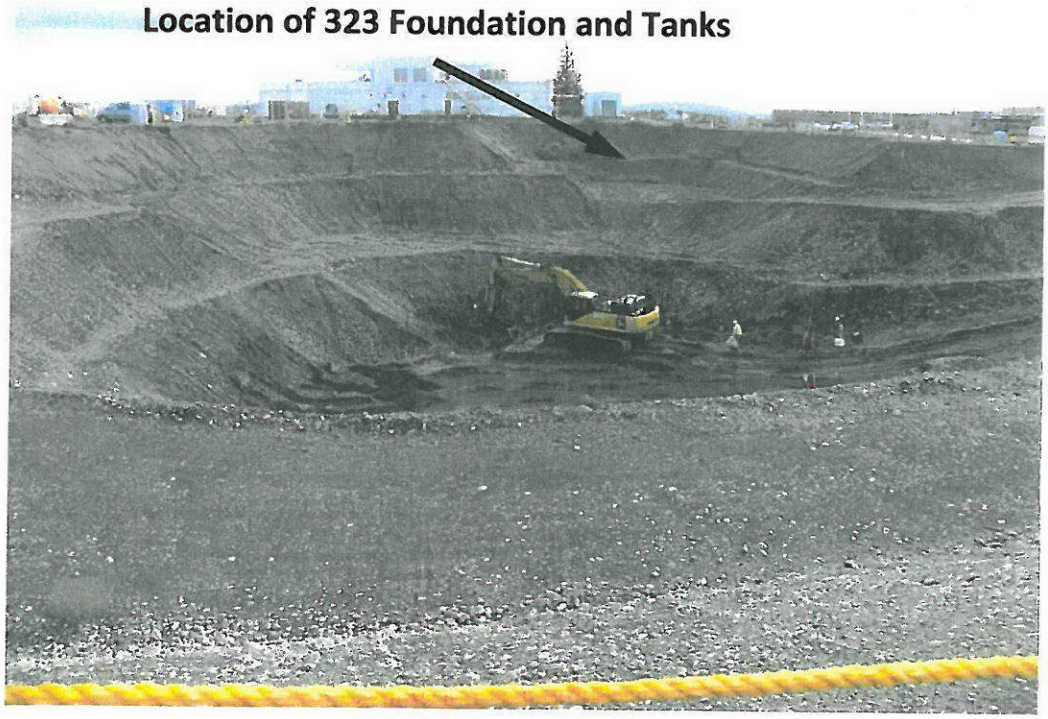
Photograph 3. 323 Building Site, Post-Demolition.



Photograph 4. 323 foundation looking southwest on September 9, 2012 (Tanks 1 though 4 are located below the slab).

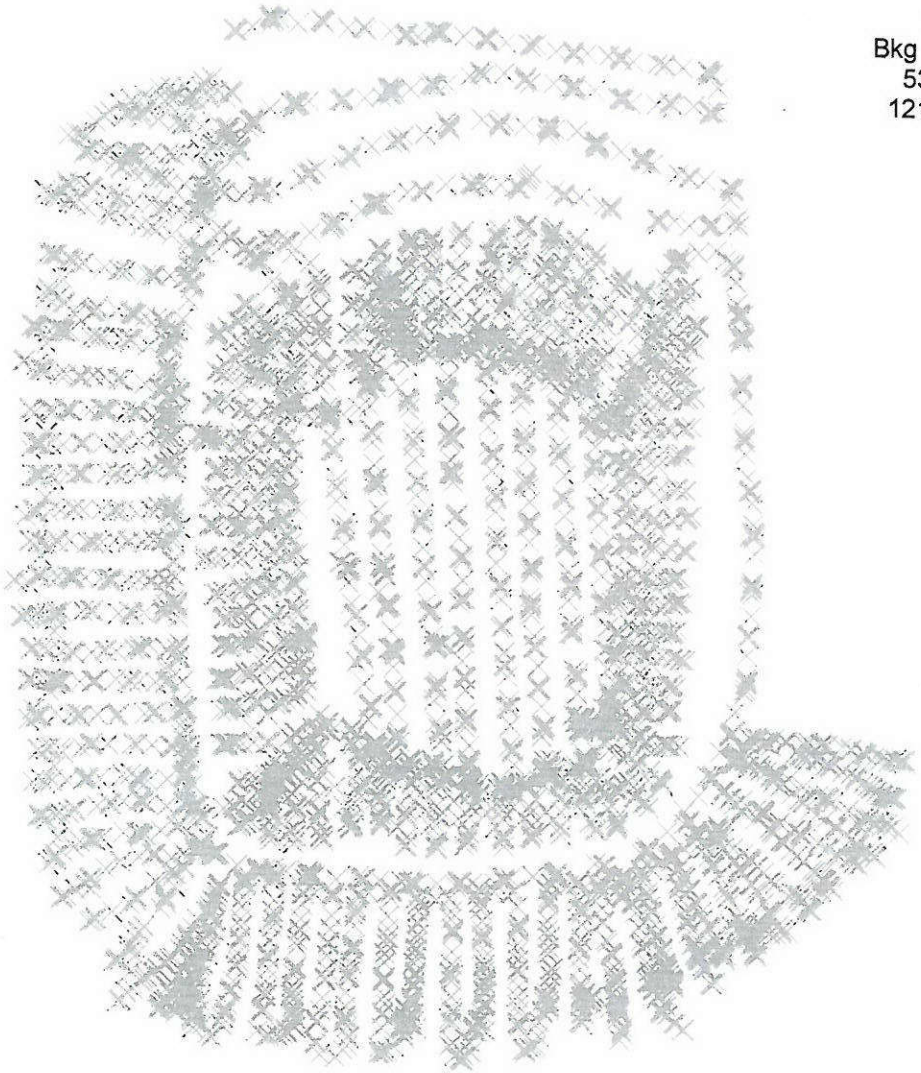
Photograph 5. Looking southeast on November 5, 2011, during 323 below-grade demolition. Note: one tank is visible to the left.

Photograph 6. Looking south on January 8, 2013, during final remediation of UPR-300-4.

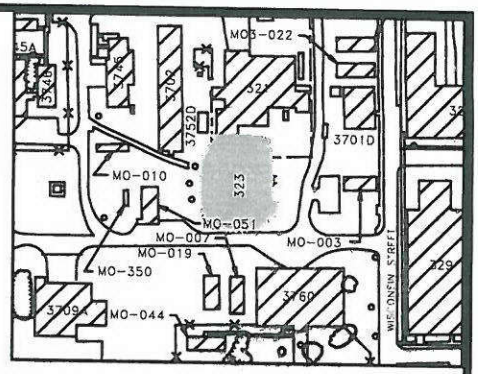


Attachment 3: GPERS Survey of the 323 Excavation.

N



Bkg Location
535m N
1213 cpm



Site View

Copy

Legend	Summary Statistics
NET CPM	Coverage File: D4_DD4_340
× <1.5x bkg	Number of Data Pnts: 8907
1.5x bkg - 5000	Type of Survey: gamma
5000 - 10000	Max GCPM: 2485
10000 - 25000	Avg Bkg CPM: 1320
25000	Survey Date: 12/5/2012
	Area Surveyed: 1413 m^2
	Project File: ESRFRM120147
	Pdf File: ESRFRM120147C

300 D4
323
GPERS Radiological Survey
Gamma Track Map

0 2 4 6 8 10 Meters

EBERLINE SERVICES

Survey Map Prepared By Bruce Coomer, ESI

Attachment 4: 323 Tanks
Waste Site Reclassification Forms

2012-106
2012-107
2012-108
2012-109

WASTE SITE RECLASSIFICATION FORM

Operable Unit: 300-FF-2 **Control No.:** 2012-106

Waste Site Code(s)/Subsite Code(s): 323 Tank 1, 321 Building Underground Waste Tanks, 321 Tank Farm #3

Reclassification Category: Interim ☒ Final ☐

Reclassification Status: Closed Out ☐ No Action ☐ Rejected ☒
RCRA Postclosure ☐ Consolidated ☐ None ☐

Approvals Needed: DOE ☒ Ecology ☐ EPA ☒

Description of current waste site condition:

The 323 Tank 1, 321 Building Underground Waste Tanks, 321 Tank Farm #3 waste site is located within the 300-FF-2 Operable Unit and completely within the footprint of the remediation and excavation of the UPR-300-4, UN-300-4, Contaminated Soil Beneath the 321 Building waste site. The 323 Tank 1 waste site consisted of 1 of 4 waste tanks that received contaminated liquids from processes in the 321 Building. The UPR-300-4 excavation and remediation has completely removed the footprint of the 323 Building and the 323 waste tanks therein. Closure of the soils below the 323 Building and the 323 waste tanks are addressed as part of the closure of the UPR-300-4 waste site.

Basis for reclassification:

Because the 323 waste tanks have been completely removed and the underlying soils are addressed in the closure documentation for the UPR-300-4 waste site, the 323 Tank 1, 321 Building Underground Waste Tanks, 321 Tank Farm #3 waste site will be reclassified as Interim Rejected.

WASTE SITE RECLASSIFICATION FORM

Operable Unit: 300-FF-2 **Control No.:** 2012-106

Waste Site Code(s)/Subsite Code(s): 323 Tank 1, 321 Building Underground Waste Tanks, 321 Tank Farm #3

Regulator comments:

Waste Site Controls:

Engineered Controls: ☐ Yes ☒ No Institutional Controls: ☐ Yes ☒ No O&M Requirements: ☐ Yes ☒ No

If any of the Waste Site Controls are checked Yes, specify control requirements including reference to the Record of Decision, TSD Closure Letter, or other relevant documents:

T. K. Teynor		7-9-2013
DOE Federal Project Director (printed)	Signature	Date
N/A		
Ecology Project Manager (printed)	Signature	Date
L. E. Gadbois	Larry Gadbois	July 15, 2013
EPA Project Manager (printed)	Signature	Date

WASTE SITE RECLASSIFICATION FORM

Operable Unit: 300-FF-2 **Control No.:** 2012-107

Waste Site Code(s)/Subsite Code(s): 323 Tank 2, 321 Building Underground Waste Tanks, 321 Tank Farm #3

Reclassification Category: Interim ☒ Final ☐

Reclassification Status: Closed Out ☐ No Action ☐ Rejected ☒
RCRA Postclosure ☐ Consolidated ☐ None ☐

Approvals Needed: DOE ☒ Ecology ☐ EPA ☒

Description of current waste site condition:

The 323 Tank 2, 321 Building Underground Waste Tanks, 321 Tank Farm #3 waste site is located within the 300-FF-2 Operable Unit and completely within the footprint of the remediation and excavation of the UPR-300-4, UN-300-4, Contaminated Soil Beneath the 321 Building waste site. The 323 Tank 2 waste site consisted of 1 of 4 waste tanks that received contaminated liquids from processes in the 321 Building. The UPR-300-4 excavation and remediation has completely removed the footprint of the 323 Building and the 323 waste tanks therein. Closure of the soils below the 323 Building and the 323 waste tanks are addressed as part of the closure of the UPR-300-4 waste site.

Basis for reclassification:

Because the 323 waste tanks have been completely removed and the underlying soils are addressed in the closure documentation for the UPR-300-4 waste site, the 323 Tank 2, 321 Building Underground Waste Tanks, 321 Tank Farm #3 waste site will be reclassified as Interim Rejected.

WASTE SITE RECLASSIFICATION FORM

Operable Unit: 300-FF-2 **Control No.:** 2012-107

Waste Site Code(s)/Subsite Code(s): 323 Tank 2, 321 Building Underground Waste Tanks, 321 Tank Farm #3

Regulator comments:

Waste Site Controls:

Engineered Controls: ☐ Yes ☒ No Institutional Controls: ☐ Yes ☒ No O&M Requirements: ☐ Yes ☒ No

If any of the Waste Site Controls are checked Yes, specify control requirements including reference to the Record of Decision, TSD Closure Letter, or other relevant documents:

T. K. Teynor		7-9-2013
DOE Federal Project Director (printed)	Signature	Date
N/A		
Ecology Project Manager (printed)	Signature	Date
L. E. Gadbois	Larry Gadbois	July 15, 2013
EPA Project Manager (printed)	Signature	Date

WASTE SITE RECLASSIFICATION FORM

Operable Unit: 300-FF-2 **Control No.:** 2012-108

Waste Site Code(s)/Subsite Code(s): 323 Tank 3, 321 Building Underground Waste Tanks, 321 Tank Farm #3

Reclassification Category: Interim ☒ Final ☐

Reclassification Status: Closed Out ☐ No Action ☐ Rejected ☒
RCRA Postclosure ☐ Consolidated ☐ None ☐

Approvals Needed: DOE ☒ Ecology ☐ EPA ☒

Description of current waste site condition:

The 323 Tank 3, 321 Building Underground Waste Tanks, 321 Tank Farm #3 waste site is located within the 300-FF-2 Operable Unit and completely within the footprint of the remediation and excavation of the UPR-300-4, UN-300-4, Contaminated Soil Beneath the 321 Building waste site. The 323 Tank 3 waste site consisted of 1 of 4 waste tanks that received contaminated liquids from processes in the 321 Building. The UPR-300-4 excavation and remediation has completely removed the footprint of the 323 Building and the 323 waste tanks therein. Closure of the soils below the 323 Building and the 323 waste tanks are addressed as part of the closure of the UPR-300-4 waste site.

Basis for reclassification:

Because the 323 waste tanks have been completely removed and the underlying soils are addressed in the closure documentation for the UPR-300-4 waste site, the 323 Tank 3, 321 Building Underground Waste Tanks, 321 Tank Farm #3 waste site will be reclassified as Interim Rejected.

WASTE SITE RECLASSIFICATION FORM

Operable Unit: 300-FF-2 **Control No.:** 2012-108

Waste Site Code(s)/Subsite Code(s): 323 Tank 3, 321 Building Underground Waste Tanks, 321 Tank Farm #3

Regulator comments:

Waste Site Controls:

Engineered Controls: ☐ Yes ☒ No Institutional Controls: ☐ Yes ☒ No O&M Requirements: ☐ Yes ☒ No

If any of the Waste Site Controls are checked Yes, specify control requirements including reference to the Record of Decision, TSD Closure Letter, or other relevant documents:

T. K. Teynor		7-9-2013
DOE Federal Project Director (printed)	Signature	Date
N/A		
Ecology Project Manager (printed)	Signature	Date
L. E. Gadbois	Larry Gadbois	July 15 2013
EPA Project Manager (printed)	Signature	Date

WASTE SITE RECLASSIFICATION FORM

Operable Unit: 300-FF-2 **Control No.:** 2012-109

Waste Site Code(s)/Subsite Code(s): 323 Tank 4, 321 Building Underground Waste Tanks, 321 Tank Farm #3

Reclassification Category: Interim ☒ Final ☐

Reclassification Status: Closed Out ☐ No Action ☐ Rejected ☒
RCRA Postclosure ☐ Consolidated ☐ None ☐

Approvals Needed: DOE ☒ Ecology ☐ EPA ☒

Description of current waste site condition:

The 323 Tank 4, 321 Building Underground Waste Tanks, 321 Tank Farm #3 waste site is located within the 300-FF-2 Operable Unit and completely within the footprint of the remediation and excavation of the UPR-300-4, UN-300-4, Contaminated Soil Beneath the 321 Building waste site. The 323 Tank 4 waste site consisted of 1 of 4 waste tanks that received contaminated liquids from processes in the 321 Building. The UPR-300-4 excavation and remediation has completely removed the footprint of the 323 Building and the 323 waste tanks therein. Closure of the soils below the 323 Building and the 323 waste tanks are addressed as part of the closure of the UPR-300-4 waste site.

Basis for reclassification:

Because the 323 waste tanks have been completely removed and the underlying soils are addressed in the closure documentation for the UPR-300-4 waste site, the 323 Tank 4, 321 Building Underground Waste Tanks, 321 Tank Farm #3 waste site will be reclassified as Interim Rejected.

WASTE SITE RECLASSIFICATION FORM

Operable Unit: 300-FF-2 **Control No.:** 2012-109

Waste Site Code(s)/Subsite Code(s): 323 Tank 4, 321 Building Underground Waste Tanks, 321 Tank Farm #3

Regulator comments:

Waste Site Controls:

Engineered Controls: ☐ Yes ☒ No Institutional Controls: ☐ Yes ☒ No O&M Requirements: ☐ Yes ☒ No

If any of the Waste Site Controls are checked Yes, specify control requirements including reference to the Record of Decision, TSD Closure Letter, or other relevant documents:

T. K. Teynor	TK Teynor	7-9-2013
DOE Federal Project Director (printed)	Signature	Date
N/A		
Ecology Project Manager (printed)	Signature	Date
L. E. Gadbois	Larry Gadbois	July 15, 2013
EPA Project Manager (printed)	Signature	Date