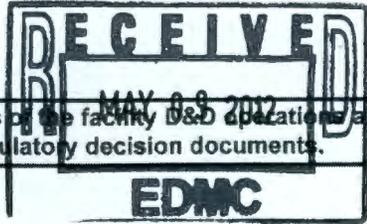


Control #: D4-100N-0033

FACILITY STATUS CHANGE FORM

Date Submitted: 4-30-2012	Area: 100-N	Control #: D4-100N-0033
Originator: David Warren	Facility ID: 1310-N "Golf Ball and Silo"	
Phone: (509) 539-6040	Action Memorandum: 100-N Ancillary Facilities	

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 isolation was performed on the 1310-N Facility prior to beginning facility decontamination.

Decontamination and Decommissioning: The following hazardous materials, if present, were removed prior to facility demolition:

batteries, light bulbs, oils, grease, asbestos-containing material (ACM), mercury, refrigerant and polychlorinated biphenyls. Hazardous material removal and waste disposition was performed in accordance with *Removal Action Work Plan for 100-N Ancillary Facilities, DOE/RL-2002-70, Revision 2 (RAWP)*.

Demolition: Demolition of the above-grade structures began in May 2009, and was completed in March 2010. Below grade demolition of the structure started in November 2009, and was completed in October 2010. Load-out activities occurred from February 2008 to October 2010. The contaminants of concern for demolition were radionuclides and asbestos. There were no anomalies encountered during the demolition of the 1310-N Facility.

Description of Deferral (as applicable):

No deferral is necessary, all D4 actions are complete.

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 above and below grade structures of the 1310-N Facility were completely demolished. All that remains of the 1310N Facility is a portion of the berm and an excavation approximately 148-feet by 220-feet and about 20-feet deep. Piping was exposed in the northwest and north sides of the excavation. The post demolition photographs and December 2, 2010 Civil GPS Survey depict the final condition of the area. Radiological Contamination remaining at the site upon completion of D4 activities will be removed by WCH Field Remediation.

The Sampling Determination Form (Attachment 5) is part of a process implemented by the *Removal Action Work Plan for 100-N Area Ancillary Facilities, DOE/RL-2002-70, Revision 3*. The Sampling Determination Form for the 1310-N Facility (SDF-100N-008) represents a regulatory agreement between DOE and the Lead Regulator (Ecology), and indicates that the requirements of the Action Memorandum have been met with respect to demonstrating that cleanup criteria, MTCA Method B for Chemical Constituents and 15 mRem above Hanford Site background for Radiological Constituents, have been achieved for soils and structures remaining after facility removal. Further action will not be required by the D4 organization to demonstrate that cleanup criteria have been met for the 1310-N Facility. However,

FACILITY STATUS CHANGE FORM

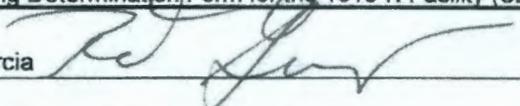
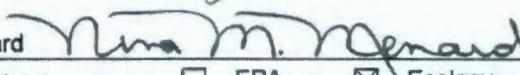
further actions will be performed by the Field Remediation Organization for remediation and closeout of the 116-N-2 WIDS site (1310-N Facility) in accordance with the CERCLA Record of Decision (ROD) and work documents.

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

Eleven WIDS sites are in the general proximity of the 1310-N Facility. Excavation for removal of the 1310-N Building resulted in the removal or partial removal of waste sites 116-N-2, 100-N-63:2, portions of the 100-N-84 pipeline series including :2, :3, :4, :5, :8 and unplanned release waste sites UPR-100-N-5, UPR-100-N-6, UPR-100-N-25 and UPR-100-N-38. The remaining sites, and/or any remaining portions of the sites will be addressed under the 100-NR-1/100-NR-2 OU Interim Action ROD. A description of the sites, as well as a diagram depicting the excavation dimensions and corresponding WIDS locations are available in Attachment 1.

Section 3: List of Attachments

1. Facility Information - Building History and Characterization
2. Pre- and Post-Demolition Photographs
3. Post-Demolition GPERs Radiological Surveys
4. Pre- and Post-Demolition GPS Surveys
5. Sampling Determination Form for the 1310-N Facility (SDF-100N-008)

Rudy Guercia  _____	4/30/2012 _____ Date
DOE-RL	Date
Nina Menard  _____	5/1/2012 _____ Date
Lead Regulator <input type="checkbox"/> EPA <input checked="" type="checkbox"/> Ecology	Date

DISTRIBUTION:

EPA: Dennis Faulk, B1-48
 Ecology: Alicia Boyd, H0-57
 DOE: Rudy Guercia, A3-04
 Document Control, H0-30
 Administrative Record, H6-08

SIS Coordinator: Benjamin Cowin, H4-22
 D4 EPL: Clay McCurley, X5-50
 Sample Design/Cleanup Verification: Megan Proctor, H4-22
 FR Engineering: Rich Carlson, N3-30
 FR EPL: Dan Saueressig, N3-30

D4 Project Facility Completion Form

Attachment 1: Facility Information (7 pages)

Facility Information

Introduction

This document provides information regarding the history and characterization of the 1310-N Golfball, and final status at the completion of deactivation, decontamination, decommissioning, and demolition (D4) activities.

Site Information

The 1310-N Radioactive Liquid Waste Treatment facility (aka WIDS 116-N-2) consisted of the 1310-N spherical tank (referred to as the "Golf Ball"), the 1310-N Pump House Silo, and the adjoining earth berm (Photo-1 Attachment 2). The Golf Ball was a 62-foot diameter spherical steel tank with a capacity of 900,000-gallons. Approximately half of the tank was constructed below grade and was nearly surrounded (on three sides) by an earthen berm installed as a radiological shield. The reinforced concrete Pump House Silo structure was 24-feet in diameter and 50-feet high, 40 feet of which was below grade.

The 1310-N facility was constructed in 1963 and located east of Taholah Road about 755-feet northwest of the 105-N Reactor. The 1310-N Golf Ball was centered at 571411.36E, 149615.16N and the 5-story Silo structure was centered at 571385.22 E, 149638.8 N, and buried into the isolation earthen berm.

The 1310-N Chemical Waste Storage facility provided storage and treatment capacity for contaminated liquid wastes generated at the N-reactor. The Golf Ball was designed to neutralize effluent prior to disposal to the 200-Area or to the N-cribs (1301-N or 1325-N). The Golf Ball tank outlet was a single 12-inch (30.5 cm) pipe flowing to the Silo that incorporated pumps for circulation, export, and neutralization of waste. Figure 1 of this Attachment illustrates the basic underground piping associated with the facility.

The site was deactivated in 1997, which included the removal of residual liquids in the Golf Ball and piping as well as sediment removal from the Golf Ball. Excavation and demolition of the structures was performed in 2010.

Radiological and Industrial Hygiene Baseline Surveys

There were multiple radiological scoping surveys and one IH scoping survey performed on the 1310-N Facility. The survey results are summarized in Table 1.

D4 Project Facility Completion Form

Table 1. Summary of Radiological and Industrial Hygiene Scoping Surveys

Type	Quantity	Method Detection Limits	Results
Radiological Scoping Surveys (Each survey included multiple sample locations and consisted of technical smears and direct readings)	Multiple, both recent and historical.	Alpha – 20 removable / 100 fixed (dpm/100cm ²) Beta-gamma – 1,000 removable / 5,000 fixed (dpm/100cm ²) Alpha – 20 removable / 500 fixed (dpm/100cm ²) Beta-gamma – 1,000 removable / 5,000 fixed (dpm/100cm ²) Alpha – 100 fixed (dpm/100cm ²) Beta-gamma – 1,000 removable / 5,000 fixed (dpm/100cm ²)	Scoping and historical surveys of the 1310-N facility confirm that the structures were contaminated. The Initial Hazard Categorization (IHC) document summarized the Radiological Inventory of the facility and classified the facility as less than Category 3.
Industrial Hygiene Scoping Surveys	1 Survey	N/A	No evidence of spills or any anomalies were noted. All atmospheric direct readings were considered to be within the normal acceptable range.

Post Demolition Radiological Surveys

In process and post demolition health and safety based Radiological Surveys were routinely performed for worker protection measures and to identify the proper posting and boundaries of the 1310-N Facility during WCH demolition operations. A summary of the data would prove insignificant as the facility was turned over to the WCH Field Remediation (FR) organization for final remediation of the 116-N-2 WIDS site, and ultimately verification that cleanup goals have been met for the soils below.

Global Positioning Environmental Radiological Surveyor (GPERS) down-posting surveys were conducted at the site on various occasions. The surveys indicated that considerable amounts of contamination still existed adjacent the excavation and on the excavation slopes. The 1310-N area was transferred over to WCH FR to perform additional remediation of the 116-N-2 WIDS site followed by subsequent verification sampling. The GPERS surveys are included in Attachment 3. The surveys, as well as the method detection limits, are summarized in Table 2. below.

D4 Project Facility Completion Form

Table 2. Summary of Radiological Down-posting Surveys

Type	Quantity	Method Detection Limits	Results
Post Demolition GPERS Surveys	Multiple. Each survey included multiple sample locations.	N/A	Surveys reveal that considerable contamination existed in the excavation area and slopes. It should be noted that readings that are under two times the background count are considered insignificant. (See Attachment 3)

Facility & Waste Characterization Sampling

A certified asbestos inspection was conducted on the 1310-N Facility on December 9, 2009, during excavation of the below grade structure. Two samples of foundation material were collected. Of the two samples, one was found to contain greater than 1% asbestos. The remainder of sampling conducted at the facility was performed for the purposes of characterization of the materials for disposal at the ERDF, or for re-use of the berm materials that surrounded the facility as backfill. The table below summarizes the samples that were taken for the purposes mentioned above, and should not be confused with verification sampling that will be performed by the Field Remediation organization for closure of the 116-N-2 WIDS site.

Table 3. Summary of Characterization Data

HEIS #	Sample Date	Logbook	Page	Description	Location	Location Detail
J187N3	1-20-09	EL-1516-13	92-95	Coupon	1310-N	12" Rad waste water recirc - 30'
J187N4	1-20-09	EL-1516-13	92-95	Smear	1310-N	12" Rad waste water recirc - 30'
J187N6	1-21-09	EL-1516-13	96-100	Soil	1310-N	SW corner of Berm
J187N7	1-21-09	EL-1516-13	96-100	Soil	1310-N	SW corner of Berm
J18KL0	3-10-09	EL-1516-14	55-62	Soil	1310-N	Inner East Berm - 2'
J18KL1	3-10-09	EL-1516-14	55-62	Soil	1310-N	Inner East Berm - 2'
J18KL4	3-10-09	EL-1516-14	55-62	Soil	1310-N	Outer South Berm - 2'
J18KL5	3-10-09	EL-1516-14	55-62	Soil	1310-N	Inner South Berm - 2'
J18KL6	3-10-09	EL-1516-14	55-62	Soil	1310-N	Inner East Berm - 2'

D4 Project Facility Completion Form

J18KK4	3-10-09	EL-1516-14	55-62	Soil	1310-N	Equipment Blank
J18KK5	3-10-09	EL-1516-14	55-62	Soil	1310-N	Outer South Berm – surface
J18KK6	3-10-09	EL-1516-14	55-62	Soil	1310-N	Outer South Berm – 2'
J18KK7	3-10-09	EL-1516-14	55-62	Soil	1310-N	Inner East Berm – surface
J18KK8	3-10-09	EL-1516-14	55-62	Soil	1310-N	Inner South Berm – 2'
J18KK9	3-10-09	EL-1516-14	55-62	Soil	1310-N	Inner East Berm – surface
J18PY1	4-29-09	EL-1516-15	2-6	Soil	1310-N	East Berm
J18PY2	4-29-09	EL-1516-15	2-6	Soil	1310-N	East Berm
J18PY3	4-29-09	EL-1516-15	2-6	Soil	1310-N	East Berm
J18PY4	4-29-09	EL-1516-15	2-6	Soil	1310-N	East Berm
J19DK2	12-9-09	EL-1516-16	15-16	Concrete	1310-N	Golf Ball Foundation
J19DK3	12-9-09	EL-1516-16	15-16	Mastic	1310-N	Golf Ball Foundation
J19LO7	2-23-10	EL-1516-18	20-21	Soil	1310-N	SE corner of Golf Ball – 5-ft
J19Y17	4-26-10	EL-1516-16	34	Pipe wrap	1310-N	24-in pipe from 1310N to 1322N

Demolition

Demolition and load-out of the 1310-N Facility, first the Golf Ball and then the Silo, began in May 2009 and was complete in October of 2010. All structures were removed except for sections of piping that ran between the 1310-N Silo and the 1322-N. This piping is already part of 100-N-63:2 RCRA pipelines, which is also described in Table 4 below. The remaining contamination identified by the GPERs surveys was deferred to WCH Field Remediation (FR) organization. Cleanup and closeout of the remaining waste sites, and demonstration that cleanup goals have been met will be addressed under the 100 NR-1/NR-2 Interim Action Record of Decision.

Contaminants of Concern

Radionuclides and Asbestos were the only contaminants of concern for Demolition of the 1310-N Facility.

Civil Survey Information

A post demolition GPS survey of the 1310-N site was conducted on December 2, 2010. The survey information is attached in Attachment 4.

Anomalies

There were no anomalies discovered during the 1310-N Facility demolition activities.

Status of WIDS Sites Associated with the Building Site

Table-4 below lists each waste site and an abbreviated description. Figure-1 (below) shows the excavation layback in light blue and the excavation toe in tan. The wastes sites can be seen in

D4 Project Facility Completion Form

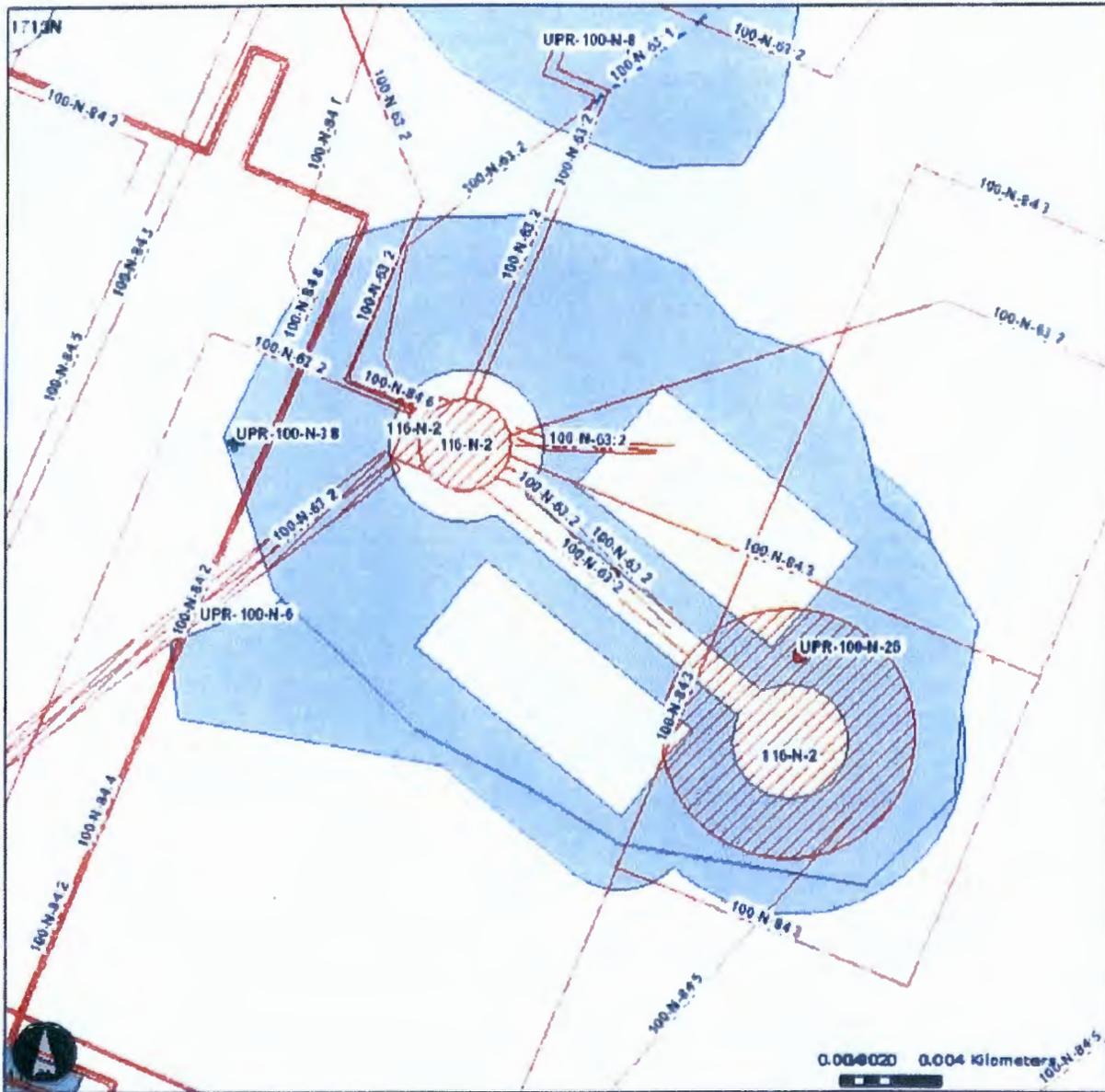
red with black type with the exception of UPR- 100-N-5 which is located along the length of 100-N-63:2 pipeline between the two 116-N-2 polygons.

Table 4. WIDS Sites at 1310-N

Site	Description	Affected by D4 Activities
100-N-63:2	105-N, 116-N-1 (1301-N) Crib, 116-N-3 (1325-N) Crib, and 116-N-2 (1310-N Tank) Underground Pipelines.	Yes
100-N-84:2	100-N Misc Piping; 100-N Area Fuel and Foam Pipelines	Yes
100-N-84:3	100-N Misc Piping; 100-N Area Filter and Potable Water Pipelines	Yes
100-N-84:4	100-N Misc Piping; 100-N Area Steam and Condensate Pipelines	Yes
100-N-84:5	100-N Misc Piping; 100-N Area Sanitary Pipelines	Yes
100-N-84:8	100-N Misc Piping; 100-N Area Unidentified Pipelines within Planned Excavations	Yes
116-N-2	Soil and debris remaining after demolition of 1310-N Golf Ball and ancillary structures.	Yes
UPR-100-N-25	Uncontrolled Venting	Yes
UPR-100-N-38	116-N-2 Caustic Spill	Yes
UPR-100-N-5	1310-N Tank Leak	Yes
UPR-100-N-6	Chemical Waste Line	Yes

The SIS/WIDS reports for these waste sites will be updated when the Cleanup Verification Package (CVP) is written and the Waste Site Reclassification Form (WSRF) is approved. The removal of RCRA piping (100-N-63:2) is tracked and accounted for annually in an updated figure as part of a RCRA permit requirement.

Figure 1. Map of 1310-N



Final Building Status and Underlying Soil

At the time of this report, all that remains of the 1310-N Facility is a portion of the earthen berm and an excavation approximately 148-feet by 220-feet and about 20-feet deep. Piping was exposed in the northwest and north sides of the excavation. The December 2, 2010 Civil GPS Survey depict the final condition of the project when it was handed over to the FR project for

D4 Project Facility Completion Form

remediation of the 116-N-2 WIDS site. All D4 work is complete and an assessment of the contaminants of concern is presented in Table 5. A visual inspection was not conducted of the excavation as further remediation by the FR organization will occur at this location. Additionally, radiological contamination identified remaining in the soil was not removed based on that same premise.

Table 5. Contaminants of Concern for Facility Demolition

Contaminant of Concern	Management Practice/Determination of No Impact to the Soil
Radionuclides	The structure was demolished under radiological controls because historical records and process knowledge identified the 1310-N facility as being contaminated. The excavation area was surveyed following removal of the structure. Those surveys identified substantial amounts of contamination remaining in the soil, which will be removed by FR during remediation of the 116-N-2 WIDS site.
Asbestos	Class II asbestos associated with the concrete foundation of the structure was not removed prior to demolition. Asbestos controls were in place during demolition and loadout, with air sampling for asbestos performed during the entire evolution.

D4 Project Facility Completion Form

Photo 1. Aerial Photo of 1310-N prior to demolition



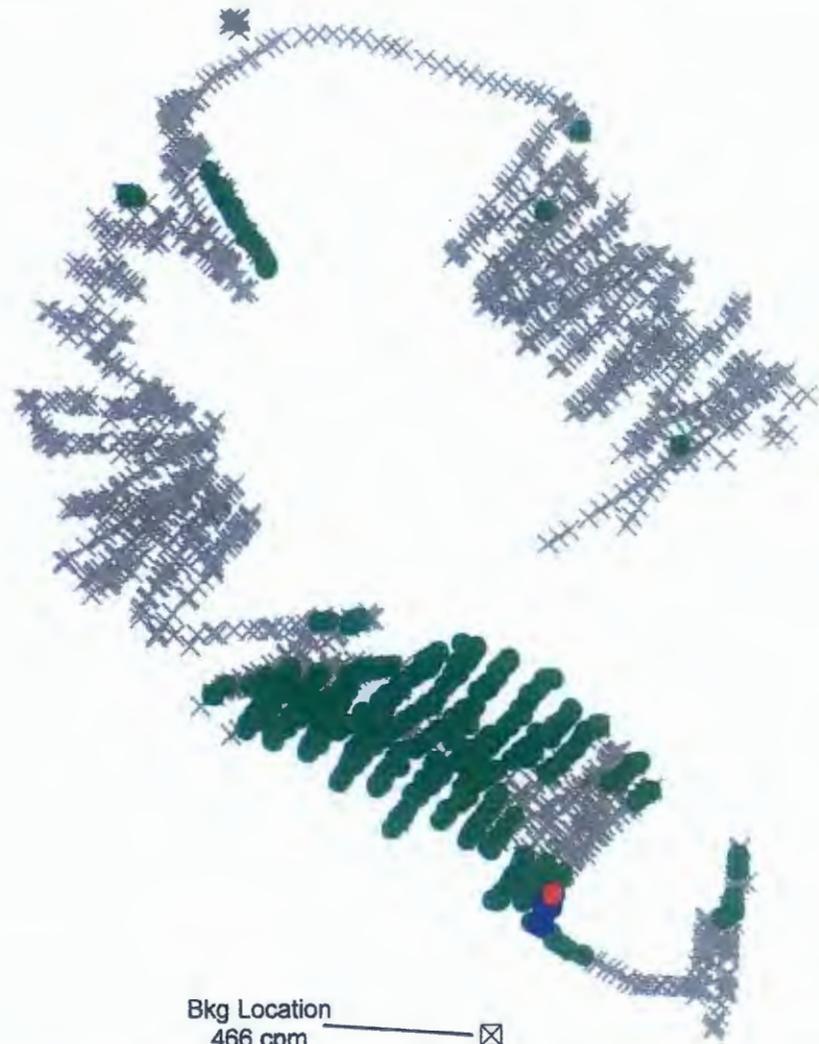
D4 Project Facility Completion Form

Photo 2. Aerial Photo of 1310-N following demolition



D4 Project Facility Completion Form

Attachment 3. Post Demolition GPERS Surveys (4 Pages)



Site View

Copy

Bkg Location
466 cpm 

Legend

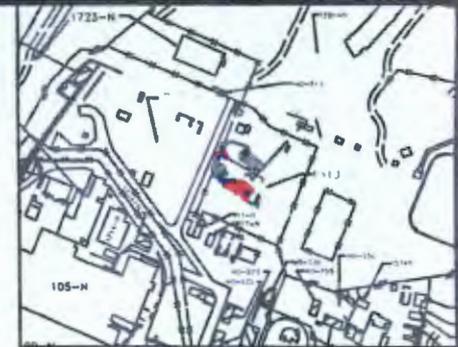
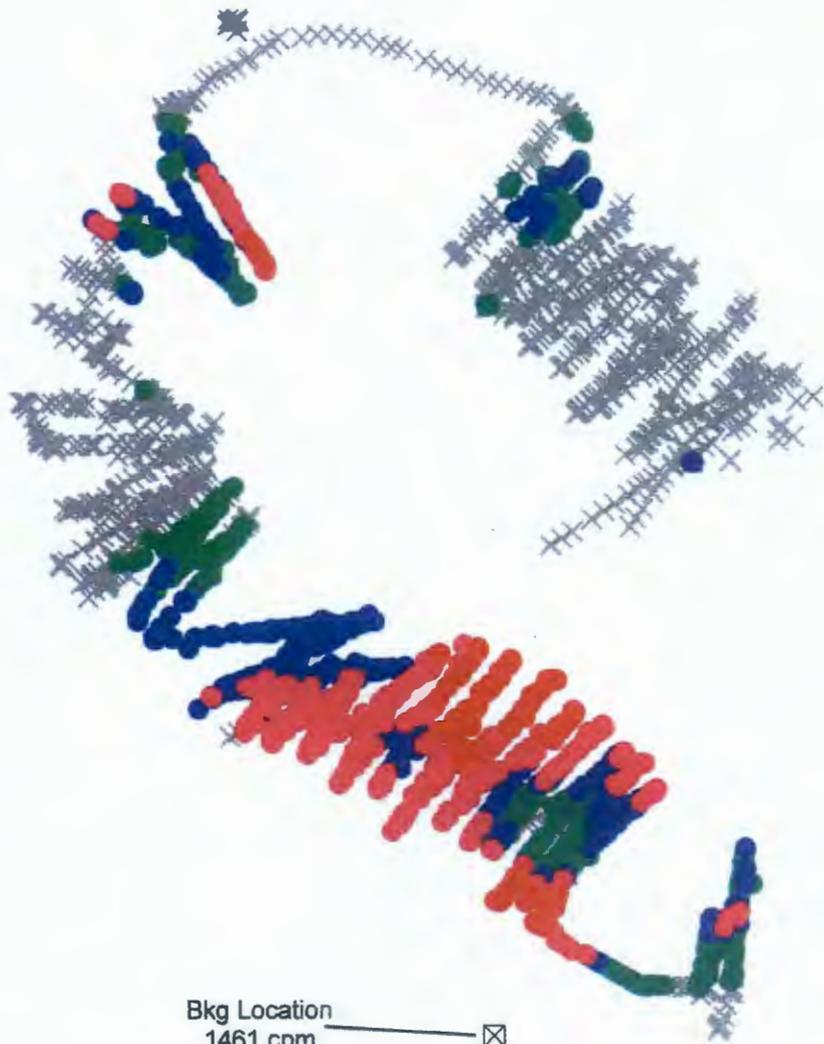
- NET CPM
- X < 932
 - 932 - 5000
 - 5000 - 10000
 - 10000 - 25000
 - > 25000

Summary Statistics
Coverage File: N321_
Number of Data Pnts: 4863
Type of Survey: 'Beta'
Max GCPM: 16841
Avg Bkg CPM: 466
Survey Date: 11/17/2010
Area Surveyed: 1224 m²
Project File: N321_
Pdf File: ESRFRM100144BC

100N D4 1310N Golfball GPERS Radiological Survey Beta Track Map



Survey Map Prepared By Bruce Coomer, ESI



Site View

Copy

Bkg Location
1461 cpm

Legend

NET CPM

- X < 2922
- 2922 - 5000
- 5000 - 10000
- 10000 - 25000
- > 25000

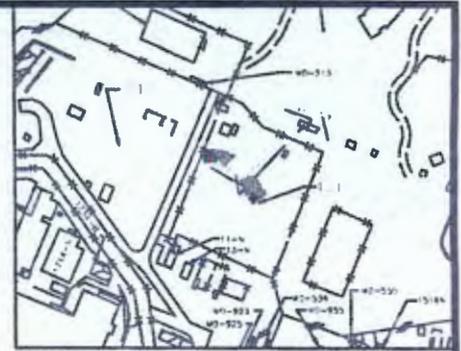
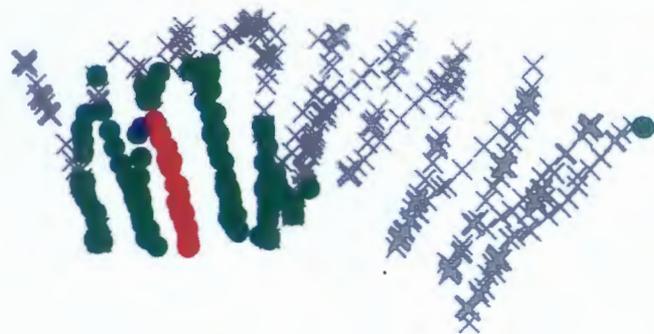
Summary Statistics

Coverage File: N321
Number of Data Pnts: 4863
Type of Survey: 'Gamma'
Max GCPM: 94812
Avg Bkg CPM: 1461
Survey Date: 11/17/2010
Area Surveyed: 1224 m²
Project File: N321
Pdf File: ESRFRM100144GC

100N D4 1310N Golfball GPERS Radiological Survey Gamma Track Map

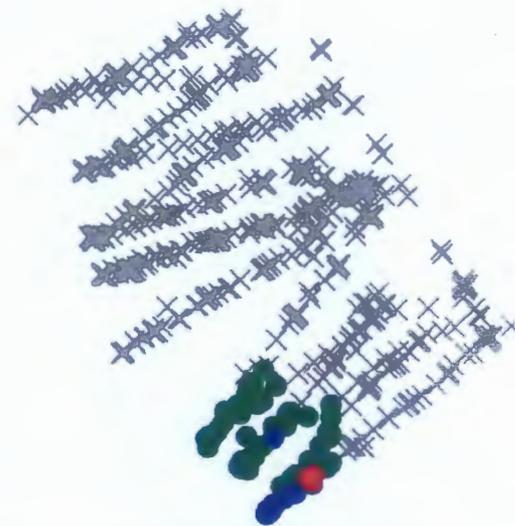


Survey Map Prepared By Bruce Coomer, ESI



Site View

Bkg Location
484 cpm



Copy

Legend

NET CPM

- X < 968
- 968 - 5000
- 5000 - 10000
- 10000 - 25000
- > 25000

Summary Statistics

Coverage File: N322B
 Number of Data Pnts: 2125
 Type of Survey: 'Beta'
 Max GCPM: 19172
 Avg Bkg CPM: 484
 Survey Date: 11/18/2010
 Area Surveyed: 443 m²
 Project File: N322B
 Pdf File: ESRFRM100145BC

100N D4
1310N Golfball
GPERS Radiological Survey
BetaTrack Map

0 2 4 6 8 10

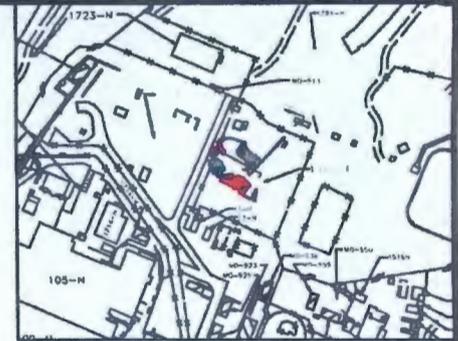
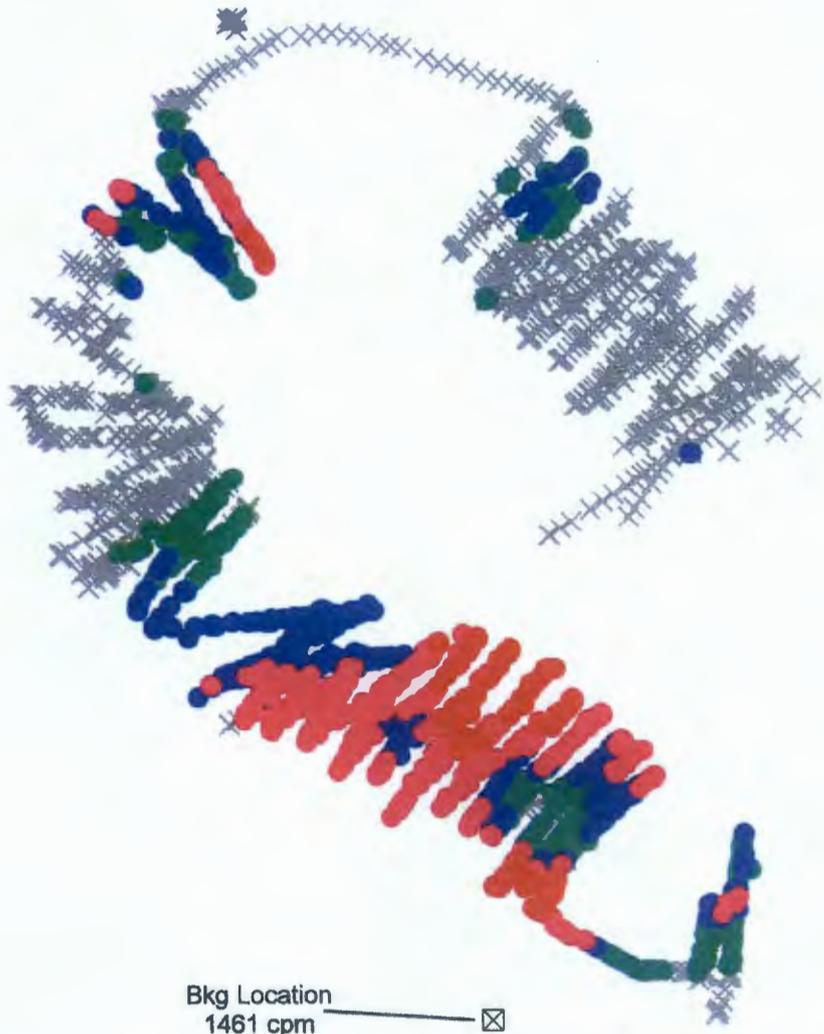


Meters



EBERLINE
SERVICES
 HANFORD, INC.

Survey Map Prepared By Bruce Coomer, ESI



Site View

Copy

Bkg Location
1461 cpm 

Legend

NET CPM

- X < 2922
-  2922 - 5000
-  5000 - 10000
-  10000 - 25000
-  > 25000

Summary Statistics

Coverage File: N321
 Number of Data Pnts: 4863
 Type of Survey: 'Gamma'
 Max GCPM: 94812
 Avg Bkg CPM: 1461
 Survey Date: 11/17/2010
 Area Surveyed: 1224 m²
 Project File: N321
 Pdf File: ESRFRM100144GC

**100N D4
 1310N Golfball
 GPERS Radiological Survey
 Gamma Track Map**



Survey Map Prepared By Bruce Coomer, ESI

D4 Project Facility Completion Form

Attachment 4. Pre and post demolition GPS Surveys (3 Pages)

Post Demo GPS Survey Report for the 1310N & 1322N, NA, NB & NC Buildings

Project : 1310N-postdemo

User name	maaye	Date & Time	4:59:42 PM 12/2/2010
Coordinate System	US State Plane 1983	Zone	Washington South 4602
Project Datum	NAD 1983 (Conus)		
Vertical Datum	NAVD88	Geoid Model	GEOID99 (Conus)
Coordinate Units	Meters		
Distance Units	Meters		
Height Units	Meters		

Survey Project Name: 1310N Post Demo Survey
 Date: 12/2/2010
 Equipment: 5800, Laser Impulse
 Survey Purpose: Map the excavation footprint for 1310N Area
 Requested By: John Harrie, Clay McCurley
 Location: 100N
 Charge Code: R1322NJ451
 Field Surveyor: Margo Aye
 Survey Software Used: Trimble Survey Controller, and Geomatics Office V.11.4
 Survey Equipment Used: 5800
 Control Monuments Used: N-2
 Survey Method: RTK
 Horizontal Precision: .20m
 Vertical Precision: .30m
 Fieldwork Start Date: 10/28/10
 Fieldwork Completion Date: 11/3/10
 Notes: Points A9-A14 were mapped using a GeoXH accuracy ~ .50 m.

All other points were mapped using a laser.
 Pipe Diameters are estimates.

GPS Name	Northing	Easting	Elevation	Feature Code
14	149674.511m	571411.955m	139.753m	pipe-offset3
28	149649.082m	571387.706m	135.819m	24in pipe
29	149642.951m	571373.749m	138.392m	10in pipe
30	149643.558m	571372.568m	137.635m	10in pipe-base
31	149654.113m	571380.914m	138.323m	4in pipein-base
32	149648.471m	571382.073m	134.191m	4in pipein-end
33	149649.818m	571389.044m	136.319m	12in pipe
34	149654.851m	571383.887m	138.186m	12in pipe
35	149655.730m	571383.705m	138.735m	12in pipe-base
37	149640.171m	571370.598m	137.897m	2.5in pipe-base
38	149644.455m	571373.676m	137.700m	2.5in pipe-end
39	149643.819m	571407.694m	138.086m	2.5in pipe-end
40	149644.414m	571407.940m	138.368m	2.5in pipe-base
50	149655.621m	571374.701m	139.413m	top
51	149657.456m	571380.980m	139.389m	top
52	149657.685m	571390.860m	139.699m	top
53	149656.027m	571396.819m	139.850m	top
54	149653.420m	571403.033m	139.726m	top
55	149648.471m	571407.272m	139.760m	top
56	149646.197m	571413.769m	139.612m	top
57	149640.164m	571417.302m	139.423m	top
58	149633.907m	571418.749m	139.239m	top

59	149630.716m	571422.844m	139.195m	top
60	149624.128m	571426.637m	139.115m	top
61	149617.769m	571425.368m	139.136m	top
62	149609.963m	571424.685m	139.245m	top
63	149602.717m	571417.584m	139.148m	top
64	149649.432m	571370.237m	139.573m	top
66	149639.571m	571365.633m	139.716m	top
67	149610.921m	571390.197m	139.446m	top
68	149606.137m	571397.758m	139.133m	top
69	149626.883m	571369.748m	139.963m	top
70	149615.530m	571381.222m	139.467m	top
106	149678.402m	571394.254m	137.125m	24in pipe-end
107	149681.611m	571395.883m	137.173m	24in pipe-base
108	149679.386m	571407.093m	139.176m	14in pipe-end
109	149679.652m	571407.541m	139.492m	14in pipe-end
110	149668.831m	571391.383m	138.150m	30in pipe 24in pipe
111	149667.897m	571393.851m	137.199m	24in pipe-base
112	149667.943m	571393.797m	137.178m	24in pipe-base
113	149676.086m	571384.873m	137.636m	pipe-debris
114	149675.689m	571386.341m	137.261m	pipe-debris
115	149675.003m	571383.725m	138.266m	pipe-debris
116	149678.715m	571385.422m	137.190m	36in pipe-base
117	149677.000m	571389.544m	137.277m	36in pipe-end
118	149666.968m	571396.900m	137.393m	pipe-unk
119	149675.063m	571409.486m	139.856m	top
120	149671.992m	571409.671m	139.800m	top
121	149666.817m	571410.746m	139.653m	top
122	149661.867m	571407.526m	139.654m	top
123	149661.669m	571399.915m	139.886m	top
124	149665.238m	571391.444m	139.414m	top
125	149669.848m	571383.980m	139.431m	top
126	149675.129m	571379.624m	139.551m	top
127	149678.257m	571378.108m	139.728m	top
128	149680.639m	571378.674m	139.651m	top
129	149683.974m	571380.076m	139.759m	top
130	149686.553m	571384.496m	139.684m	top
131	149683.921m	571409.665m	140.192m	top
A10	149691.217m	571391.093m	?	top
A11	149692.792m	571395.623m	?	top
A12	149692.322m	571398.551m	?	top
A13	149689.560m	571402.087m	?	top
A14	149687.547m	571405.888m	0.000m	top
A15	149683.921m	571409.665m	0.000m	top
A9	149689.035m	571387.143m	?	
N-2	149644.178m	571811.158m	144.908m	

[Back to top](#)

D4 Project Facility Completion Form

Attachment 5. Sampling Determination Form for the 1310-N Facility (5 Pages)

D4 Project Facility Completion Form

Attachment 5. Sampling Determination Form for the 1310-N Facility (5 Pages)

100-N ANCILLARY FACILITIES REMOVAL ACTION SAMPLING DETERMINATION FORM

Determination Number
SDF-100N-008

A. INSTRUCTIONS

This form must be completed to: 1) document existing data in order to determine if current data is suitable to prove completion of 100-N Ancillary Facilities, or 2) document that site-specific sampling and analyses are needed to provide completion for 100-N Ancillary Facilities.

B. GENERAL INFORMATION

Building Name: Radioactive Chemical Waste Treatment Facility Building Number: 1310-N

WIDS Sites Associated or Adjacent:

- Associated (determined using GIS Site Tool):
116-N-2 (aka 1310-N), 100-N-83:2, 100-N-84:3, 100-N-84:5, 100-N-84:6, UPR-100-N-6, & UPR-100-N-25
- Adjacent (determined using GIS Site Tool):
100-N-84:2, 100-N-84:4, 100-N-84:7, 100-N-84:8, UPR-100-N-5, & UPR-100-N-38 (rejected)

Other:

The Post-Demolition Summary Report for the 1310-N Radioactive Liquid Waste Treatment Facility indicates that many of the above waste sites were associated with the facility (CCN 157088 pg. 3).

C. INFORMATION SOURCES

Available information (list document number for each if applicable):

Historical Site Assessment: <u>N/A</u>	Site Walkdown: <u>N/A</u>
IH Characterization Report: <u>N/A</u>	Global Positioning Environmental Radiological Survey: <u>Radiological Surveys (GPERS): ESR-FRM-10-0144 / 0145</u>
IHC/FHC Document: <u>Initial Hazard Categorization (IHC) Documentation Form for 1310-N: Document No. IHC-2008-0038</u>	WIDS/SIS: <u>RCC Stewardship Information System (SIS) Facility Summary Report: 1310-N (aka WIDS 116-N-2). Waste Information Data System (WIDS) Report for 116-N-2.</u>
<u>Post-Demolition Summary Report for the 1310-N PDSR: Radioactive Liquid Waste Treatment Facility: CCN 157088</u>	Facility Inspection: <u>N/A</u>
Waste Characterization Checklist: <u>N/A</u>	Summary Report: <u>N/A</u>

Other:

- 100 Area D4 Project Building Completion Report: WCH-473
- Explanation of Significant Differences for the 100-NR-1 and 100-NR-2 Operable Units Interim Remedial Action Record of Decision (Relevant Portion Attached to this Form)
- GIS Site Tool Figure 1: (Attached to this Form)
- Remediation Designs: 0100-DD-C0656 / C0657
- Pre-Existing Conditions Survey of Hanford Site Facilities to be Managed by BHI, Phase II: Doc Num BHI-00221
- Photographs of 1310-N Pre-Demolition, No Time Stamps: SIS Facility Summary Report for 1310-N pgs. 4 & 6-8, BHI-00221 pg. 3-83, & CCN 157088 pg. 10
- Photograph of 1310-N Pre-Demolition, Time-Stamped 11/14/2006: SIS Facility Summary Report for 1310-N pg. 5
- Photograph of 1310-N Post-Demolition, No Time Stamp: CCN 157088 pg. 11

D. HAZARDOUS SUBSTANCES

Check all that apply:

- None Asbestos containing material Lead PCBs/PCB Articles Oils/Greases
 Chemicals List: _____
 Radiological Contamination Mercury/Mercury Devices
 Other: Contaminated sump, conex box with unknown contents (BHI-00221 pg. 3-83).

References/Comments:

- Asbestos: Friable asbestos piping insulation (BHI-00221 pg. 3-83)

100-N ANCILLARY FACILITIES REMOVAL ACTION SAMPLING DETERMINATION FORM

Determination Number
SDF-100N-008

- Lead: Lead sheets and blankets (BHI-00221 pg. 3-83)
- Radiological Contamination: Substantially elevated subgrade levels with surface contamination expected (BHI-00221 pg. 3-83)

Additional hazardous substances associated with this facility were not identified for use with this form because the area once occupied by this now-demolished facility will be closed out by the Field Remediation organization. Accordingly, the Field Remediation organization will be responsible to address all hazardous substances associated with this facility. See the "Comments" section below for details concerning the Field Remediation organization's responsibilities pertaining to the area once occupied by this facility.

Liquids: Yes No

If yes, describe source and nature of liquids:
The facility received contaminated liquid waste from the N-Reactor (CCN 157088 pg. 1, IHC-2006-0038 pg. 1, & WCH-473 pg. 3). It had a liquid storage tank with a capacity of 900,000 gallons (CCN 157088 pg. 1, IHC-2006-0038 pg. 1, & WCH-473 pg. 3).

Were the hazardous substances removed from the facility prior to demolition? Yes No

As verified by what documentation:
The facility's contaminated liquid, sediment, and water were removed by the end of the deactivation phase of D4 activities (CCN 157088 pg. 1 & IHC-2006-0038 pg. 1). All known hazardous substances were removed from the facility prior to demolition (WCH-473 pg. 15).

Was there potential for hazardous substances to be introduced into the soils during facility operations or demolition? Yes No N/A

References/Comments:
No indication was found during review of the facility that suggests that a hazardous substance was introduced into the soil during demolition of the facility. This lack of indication is substantiated by the pre-demolition removal of all known hazardous substances (WCH-473 pg. 15). While there doesn't appear to have been a potential for hazardous substance introduction during demolition, such potential does appear to have existed during facility operations. During its operation, the facility received contaminated liquid waste from the N-Reactor (CCN 157088 pg. 1, IHC-2006-0038 pg. 1, & WCH-473 pg. 3). Elevated GPERS survey results suggest that hazardous substance introduction did occur at this location (ESR-FRM-10-0144 / 0145).

List any hazardous materials left in the building for demolition:
It seems that there were no hazardous materials left in the building for demolition.

Does review of historical records and process knowledge indicate a potential for radiological or chemical contamination to be present in the facility?
GPERS surveys conducted at the facility indicate the presence of elevated radiological levels (ESR-FRM-10-0144 / 0145).

There is some indication that chemical contamination could have been present at the facility (BHI-00221 pg. 3-83). However, the facility's historical records and process knowledge pertaining to chemical contamination were not reviewed in detail because future remedial action will be performed at this location. See the "Comments" section below for details concerning the Field Remediation organization's responsibilities pertaining to this location.

Comments:
The Explanation of Significant Differences for the 100-NR-1 and 100-NR-2 Operable Units Interim Remedial Action Record of Decision (ESD) indicates that the 1310-N facility was added to the Interim Remedial Action Record of Decision (ESD pg. 17). By its inclusion in the ESD, the footprint of the 1310-N facility has been identified as one that will undergo remedial action. Accordingly, the area once occupied by this now-demolished facility will be closed out by the Field Remediation organization. Any sampling deemed necessary for this location will be handled by the Field Remediation organization. Remediation designs have been created for this location (0100-DD-C0656 & 0100-DD-C0657). As evidenced by the GIS Site Tool, the Field Remediation excavation boundary includes the entire footprint of the facility (GIS Site Tool Figure 1-attached to this form).

The facility was surrounded by a soil berm, part of which was not removed during D4 activities (WCH-473 pgs. 4 & 16). The foundation for this facility was removed during D4 activities (WCH-473 pg. 15).

E. FIELD OBSERVATIONS

100-N ANCILLARY FACILITIES REMOVAL ACTION SAMPLING DETERMINATION FORM

Determination Number
SDF-100N-008

Visual Inspection

Were any stained soils/anomalies discovered during or after demolition of the facility? Yes No

References/Comments:
The Field Remediation organization will perform closeout of this location. No anomalies were discovered during demolition of this facility (CCN 157088 pg. 5).

Were samples taken of the stained soils/anomalies? Yes No N/A

References/Comments:
It was not determined during review of this facility if stained soils were discovered. No anomalies were discovered. Accordingly, this question is not applicable.

Do results of the samples indicate that chemical contamination exists? Yes No N/A

References/Comments:
It was not determined during review of this facility if stained soils were discovered. No anomalies were discovered. Accordingly, this question is not applicable.

Is the area potentially a discovery site? Yes No

References/Comments:
However, historical records pertaining to soil appearance at this facility were not reviewed because the Field Remediation organization will perform closeout of this location. No anomalies were discovered during demolition of this facility (CCN 157088 pg. 5).

Radiological Surveys

Did radiological surveys (GPERS or equivalent) identify contamination? Yes No

References/Comments:
ESR-FRM-10-0144 / 0145

Were samples taken of the radiologically contaminated soils? Yes No N/A

References/Comments:
It was not determined during review of this facility if the radiologically contaminated soils were sampled because the Field Remediation organization will perform closeout of this location.

Is the area potentially a discovery site? Yes No

References/Comments:
The GPERS surveys identified elevated levels of radiological contamination.

Were the contaminated materials removed? Yes No N/A

References/Comments:
It was not determined during review of this facility if the radiologically contaminated soils were removed because the Field Remediation organization will perform closeout of this location.

F. WIDS SITES

Were there any WIDS sites affected by D4 activities? Yes No

If yes, list the WIDS sites:
116-N-2 (1310-N Golf Ball), 100-N-63:2, 100-N-84 (colon sites 2, 3, 4, 5, & 8), UPR-100-N-6, UPR-100-N-6, UPR-100-N-25, and UPR-100-N-38 (CCN 157088 pg. 3)

Were the WIDS site(s) completely removed? Yes No

References/Comments:
It is unclear which, if any, of the affected WIDS sites were completely removed during D4 activities (CCN 157088 pg. 3).

Will the Ancillary Facility Footprint be deferred to FR to be closed out with a co-located Waste Site? Yes No

References/Comments:
The 1310-N facility is listed in the ESD (pg. 17). Accordingly, closeout of the 1310-N footprint is already assigned to the remedial action, rendering its deferral unnecessary.

G. COPCs FOR SOILS AND STRUCTURES REMAINING AFTER DEMOLITION

100-N ANCILLARY FACILITIES REMOVAL ACTION SAMPLING DETERMINATION FORM

Determination Number
SDF-100N-008

What are the potential contaminants of concern for the remaining below-grade soil?
 None SVOC VOC Metals TPH Rad PCBs
 Other (Specify): See "Comments" below.

Comments:
The COPCs associated with this facility were not identified for use with this form because closeout of this location will be performed as part of a remedial action. Accordingly, the Field Remediation organization will be responsible to identify and address all COPCs associated with this facility.

Summary of in-process soil sampling requirements:
N/A

Constituents detected / concentrations / rationale
See below.

Sample Collection Summary
• Coupon at 1310-N: Sample (HEIS) Number J187N3 (CCN 157088 Attachment 1)
• Smear at 1310-N: Sample (HEIS) Number J187N4 (CCN 157088 Attachment 1)
• Soil at 1310-N: Sample (HEIS) Numbers J187N6, J187N7, J18KLO, J18KL1, J18KL4, J18KL5, J18KL6, J18KK4, J18KK5, J18KK6, J18KK7, J18KK8, J18KK9, J18PY1, J18PY2, J18PY3, J18PY4, & J19L07 (CCN 157088 Attachment 1)
• Concrete at 1310-N: Sample (HEIS) Number J19DK2 (CCN 157088 Attachment 1)
• Mastic at 1310-N: Sample (HEIS) Number J19DK3 (CCN 157088 Attachment 1)
• Pipe Wrap at 1310-N: Sample (HEIS) Number J19Y17 (CCN 157088 Attachment 1)

H. NOTES / ADDITIONAL INFORMATION

Check here if additional information / data / maps / sketches are attached to this form.
If checked, list the attachment(s):
• Explanation of Significant Differences for the 100-NR-1 and 100-NR-2 Operable Units Interim Remedial Action Record of Decision (select portion only)
• GIS Site Tool Figure 1

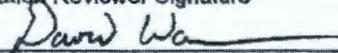
I. SAMPLING

Are soil samples required to demonstrate that remaining structure or below-grade soils meet cleanup standards? Yes No

Based on the above information it was determined that sampling: will will not be required in order to demonstrate that cleanup criteria have been met.

ACKNOWLEDGEMENT

The individual below acknowledges that the review of this facility has been completed. He or she also commits to provide to the Department of Energy (DOE) and the Washington State Department of Ecology (Ecology) any available information that could alter the sampling decision established in this form.

Information Reviewer Signature 	Printed Name David Warren	Date 2/22/2012
---	------------------------------	-------------------

The regulatory representative below agrees with the decision outlined in section I of this form for the indicated facility and supports implementation of that decision based on the information currently available.

DOE Signature 	Printed Name R.F. Guerra	Date 2/21/2012
--	-----------------------------	-------------------

**100-N ANCILLARY FACILITIES REMOVAL ACTION
SAMPLING DETERMINATION FORM**

Determination Number
SDF-100N-008

Ecology Signature

Nina M. Menard

Printed Name

NINA M. Menard

Date

2/23/2012