Control #: D4-100N-0002 rev. 1

FACILITY STATUS CHANGE FORM

Date Submitted:	Area:	Control #:
Nov 26, 2012	100-N Area	D4-100N-0002 rev. 1
Originator:	**Facility ID:**	
David Warren	151-N 230-KV Electrical Substation	
Phone:	**Action Memorandum:**	
539-6040	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:
This Facility Status Change Form presents previously submitted information, and additional information as necessary, that documents completion of D4 activities at Hanford Facility 151-N 230-KV Electrical Substation. The previously submitted information, "D4 Project Soils and/or Below Grade Structures Completion Form,151-N Electrical Substation" (Attachment 1) does not conform to a current project requirement that specifies "each completed form must be signed by the DOE-Richland Operations Office (RL) and lead regulator project manager." This FSCF contains those required signatures.

Description of Deferral (as applicable):
None

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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.

Description of Current/As-Left Conditions:
Demolition of the 151-N facility began in December of 2005 and was completed in March of 2006. This demolition included the underlying basement slab and footings, the two adjacent transformers on the north side of the 151-N facility, and the adjacent 100-N-54 Waste Information Data System (WIDS) site on the south side of the 151-N facility. The resulting debris was loaded into roll-off containers and shipped to the Environmental Restoration Disposal Facility (ERDF) for disposal. Following demolition and load out, the 151-N facility excavation was backfilled with clean soil and graded to match the surrounding terrain. Contaminated soil was discovered below the 100-N-54 excavation. Accordingly, straw was placed at the bottom extent of the excavation and clean soil was used to backfill the excavation on an interim basis.

The 151-N transformer pedestals were demolished to approximately three feet below grade in April of 2012. The resulting debris was loaded into roll-off containers and shipped to the ERDF for disposal. Load out was completed in April of 2012. Approximately three vertical feet of the transformer pedestals remains within the excavation, which has not been backfilled and remains open.

Identification of Documented Waste Site(s) or Nature of Potential Waste Site Discovery (as applicable):
WIDS sites 100-N-54, 100-N-84:1, 100-N-84:3, and 100-N-86 lie underneath, or adjacent to, the footprints of the 151-N facility and the adjacent transformer pad. WIDS site 100-N-54 consists of a French drain, which was removed with the 151-N facility, and the underlying soil adjacent to the south side of the 151-N facility. WIDS sites 100-N-84:1 and 100-N-84:3 were underground pipelines that transported steam condensate and raw, potable, and filtered water. WIDS site

FACILITY STATUS CHANGE FORM

100-N-86 consists of the 151-N transformer pedestals, the OCB pad, and all underlying soils. Additional remediation will be necessary for the 100-N-54 and 100-N-86 WIDS sites. This remediation will be performed by the Field Remediation organization (FR). This additional remediation will not be deferred to FR as it remains within FR work scope. Future remedial activity is expected to be necessary for the 100-N-84:1 and 100-N-84:3 WIDS sites.

The Sampling Determination Form (Attachment 6) 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 151-N 230-KV Electrical Substation (SDF-100N-004) 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 151-N Facility.

Section 3: List of Attachments

1. D4 Project Soils and/or Below Grade Structures Completion Form,151-N Electrical Substation
2. Facility information (building history and characterization)
3. Project Photographs
4. Global Positioning Environmental Radiological Surveyor (GPERS) survey map
5. Global Positioning System (GPS) civil survey information
6. Sampling Determination Form for the 151-N 230-KV Electrical Substation (SDF-100N-004)

Rudy Guercia	11/29/2012
DOE-RL	Date
Nina Menard Nina M. Menard	12/13/2012
Lead Regulator ☐ EPA ☒ Ecology	Date

DISTRIBUTION:

EPA: Dennis Faulk, B1-46
Ecology: Wanda Elliott, H0-57
DOE: Rudy Guercia, A3-04
Document Control, ~~H0-30~~ H4-11
Administrative Record, H6-08
(100NR-1 OU)

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

Attachment 1: D4 Project Soils and/or Below Grade Structure Form, 151-N Electrical Substation
(20 pages)

D4 Project Soils and/or Below Grade Structures Completion Form
151-N Electrical Substation

Date Submitted: 3/28/06 **Originator:** J. W. Golden **Phone:** 521-0877	**Associated Building/ Facility:** 151N Electrical Substation **Associated Action Memorandum:** Action Memorandum 100N Ancillary Facilities	**Document Number:** D4-100N-0002

This form, documents that the soil and/ or below grade structures meet the requirements of the Associated Action Memorandum.

Basis for Determination (attach pertinent documentation):

The D4 activities for 151N have been completed in accordance with the requirements of the action memorandum. There was one existing waste site near the building (100-N-54 French drain). The French drain was removed as part of a teaming effort between the entity performing the removal action (building) and the entity performing the remedial action (the WIDS site). Closeout sampling was performed as part of the remedial action and will be documented separately in a cleanup verification package (CVP). The closeout of WIDS site 100-N-54 is not addressed under this document.

With the exception of waste site 100-N-54, there were no indications that suggested the presence of additional waste sites in the underlying soil; this determination was based on documented project knowledge of the facility operation and data collected during the demolition of the facility. The basis for this determination is supported as follows:

- The area was not a previously posted as a radiological area nor was the area previously identified within WIDS.
- Post demolition radiological surveys following demolition did not result in the area being managed as a radiological area.
- The facility did not manage dangerous waste.
- There were no documented spills of hazardous/ mixed waste.
- Process history.

Detailed information pertaining to waste profiles, radiological survey data and sampling data are contained within the attached demolition summary report (CCN 127176).

John Fulton, D4 Project Director	3/30/06 **Date**
Jim Golden, D4 Environmental Project Lead	3/30/06 **Date**

ES/FR Data Transfer Checklist

☑ Reviewed Facility Operation and WIDS?
Yes. One WIDS site impacted. FR will address the WIDS site closeout.

☑ Reviewed Waste Data?
Yes.

☑ Reviewed Rad Data?
Reviewed conclusions. The area was decontaminated.

☑ Reviewed Sample Data?
Yes.

☑ Functional Review?
yes

☑ GPS Data Provided?
yes

☑ Items Discovered During Demolition Provided?
Nothing out of the ordinary. Conduit is shown in the pictures, but is not considered to be part of the removal action

☑ Rad Survey Data Provided?
Links to data

☑ Waste Profile Numbers Provided?
yes

☐ CVP Provided?
NA

WCH Washington Closure Hanford

Interoffice Memorandum

127176

TO: R. R. Nielson X5-50

DATE: March 28, 2006

COPIES: See Below
Records and Document Control H0-30

FROM: D. B. Encke
100 Area D4 Characterization
X5-50/373-9733

SUBJECT: **POST-DEMOLITION SUMMARY REPORT FOR THE 151-N ELECTRICAL SUBSTATION**

Attached is the Post-Demolition Summary Report for the 151-N Electrical Substation. This report documents the final status of the area at the completion of D4 activities. The information in this report includes references to radiological and industrial hygiene surveys, waste profiles used to ship debris to the ERDF, and a status of WIDS sites associated with the 151-N facility.

Please contact myself at 373-9733, or Dave Shea at 373-1171, if you have any questions on this information.

DBE:mkb

Attachment: Post-demolition Summary Report for the 151-N Electrical Substation

Copies (all w/a):
G. J. Borden X7-85
S. L. Lachmann X5-50
R. G. Egge X5-50
D. B. Encke X5-50
G. J. Gibbons X5-50
J. W. Golden L1-04
I. D. Jacques L1-04
D. W. Shea X5-50
C. R. Watson X5-50

Post Demolition Summary Report for the 151-N Electrical Substation

Site Information
The 151-N Electrical Substation (151-N) converted 230 KV input to 13.8 KV output , provided power from off of the grid until N reactor could provide its own electrical power, and supplied electric power during shutdown operations.

A Characterization Summary Report (CSR) was developed for the 151-N (WCH, 2005).

Demolition activities began in December of 2005 and continued into March of 2006.

Close-out documentation and sampling requirements are set forth in a facility specific sampling plan (WCH, 2006).

Radiological and IH Scooping Surveys
Radiological and Industrial Hygiene (IH) scooping surveys were performed on the 151-N prior to demolition. Results of the radiological surveys are documented on RSR-IFSM-05-0357. Contamination attributed to biological vectors (mud daubers) was observed on the rooflines. Consequentially, during demolition, the site was controlled as a contamination area (CA).

Following demolition of the facility, D4 Project Radiological Control Technicians (RCTs) performed down-posting surveys to release the excavation from radiological controls. See survey RSR-IFSM-06-0192.

An industrial hygiene baseline survey was conducted in the fall of 2005, but the survey yielded no results that would cause a concern.

Waste and other Characterization Samples
The 151-N was constructed of standard building materials (wood, metal, concrete, glass, fiberglass insulation). Existing waste profiles adequately described the waste stream therefore, no samples were collected to designate the buildings.

Samples were collected to identify potential asbestos containing materials (WCH, 2005b). Historical data revealed that there were no processes within 151-N facility which could have led to contamination of surrounding soils. When soil was discovered that appeared to be darker than normal, a sample was collected to verify the project assumptions. Additionally as part of the "teaming effort" with Field Remediation (FR), one sample was collected to verify adequate remediation of the 100-N-54 French drain. This last sample was collected as required in the sampling plan (WCH, 2006). FR will use the data to make conclusions about the WIDS site (100-N-54 French Drain).

All sampling is summarized in Attachment 1.

Waste Profiles
Waste profile 100N007 rev. 0 was used to disposition generated waste at the ERDF.

Post Demolition Radiological Survey
Following demolition, the excavation of the former 151-N facility was surveyed for transferable surface β and γ contamination by the D4 project's Radiological Control's organization. The results were favorable and the area was downposted. See survey: RSR-IFSM-06-0009.

Civil Survey Information (GPS, including elevation)
A GPS civil survey was performed on the 151-N prior to demolition. This survey located the corners of the building, the 100-N-54 French Drain, and corners and extents of near-by structures. A post demolition civil survey was performed. This survey documented the extent of the excavation (footprint and depth) as well as remaining structures (electrical conduits and concrete structures) extending into the excavation. It should be noted, that these remaining concrete structures are not from the 151-N facility but rather footings from adjacent structures.

These surveys are included as Attachment 2.

A simplified floor plan of the 151-N prior to its demolition is included as Figure 1.

Status of WIDS Sites Associated with Building Site
The 100-N-54 French Drain is the only WIDS site associated with the 151-N facility. This French drain received discharge from a sink and from a sump in the basement. Owing to its location, this site was disturbed by demolition activities in that the entire engineered structure of the French drain fell within the layback of the excavation and was consequentially dispositioned as waste. As discussed previously, and as directed per the Sampling and Analysis Instruction (SAI) (WHC, 2006), a sample was collected of the soils underlying the French drain. The analytical results of this sample indicated that the soils below the 100-N-54 French drain exceed the action levels identified in the SAI. As further remediation of the 100-N-54 site was outside of the work scope of D4, residual soil from below the 100-N-54 French drain was returned to the its excavation.

During sampling of the 100-N-54 French drain, both IH and radiological surveys were performed. The soil from below the engineered structure of the100-N-54 French drain was documented on RSR-IFSM-05-0112. The industrial hygiene survey was performed on 12/27/05.

Anomalies Discovered during Demolition

As demolition/excavation effort progressed, differences in the appearance of the sidewall soil lithography became apparent. The major difference is that of appearance; in portions of the sidewall, soils are dark, almost black, where-as in other areas, soils appear tan/brown. Sorting appears similar between the dark and light material. A single soil sample was collected of the dark soil. The lab results of this soil sample revealed no unusual values for the parameters tested (metals, semi-volatile organics, diesel range organics). See sample delivery group K0241.

Final Building Status
All of the 151-N Electrical Substation including the basement slab, footings, and transformers were dispositioned to the ERDF.

During demolition activities, a ramp was excavated through native soils to allow heavy equipment access to the bottom of the excavation. This soil was stockpiled as potentially clean material acceptable for use as backfill material. This soil was included in the down-posting survey RSR-IFSM-06-0192.

The site is scheduled for backfill in FY '06. The current plan for backfill is to mark the French drain excavation with straw to delineate its extent prior to backfilling with clean fill. Backfill material will be the ramp material discussed previously and soils obtained from borrow pit "D" near D reactor.

There is no deferral to the Field Remediation project. The 100-N-54 French Drain requires additional remediation, however, this WIDS site was never part of D4's workscope, it was and still remains, within the FR project. The only subsurface structures associated with the 151-N excavation are concrete conduit encasements and concrete footings of adjacent structures.

Documentation
Documents referenced in this summary are available through the Document Control organization.

References

WCH, 2006, *Sampling and Analysis Instruction to Support Demolition of the 151-N and 153-N Facilities*, WCH-35, Washington Closure Hanford, Richland, Washington.

WCH, 2005, *Characterization Summary Report for the 151-N & 153-N Electrical Substations, 119-N Exhaust and 119-N Stack Air Monitoring Buildings, 1313-N Change Control Building, and 181-NC Sample Stack*, IOM 122923, dated November 10, 2005, Washington Closure Hanford, Richland, Washington.

WCH, 2005b, *Asbestos Summary Report, 151N Electrical Substation*, IOM dated 12/14/05. CCN# 125283. Richland. WA.

Figure 1
151-N Electrical Substation

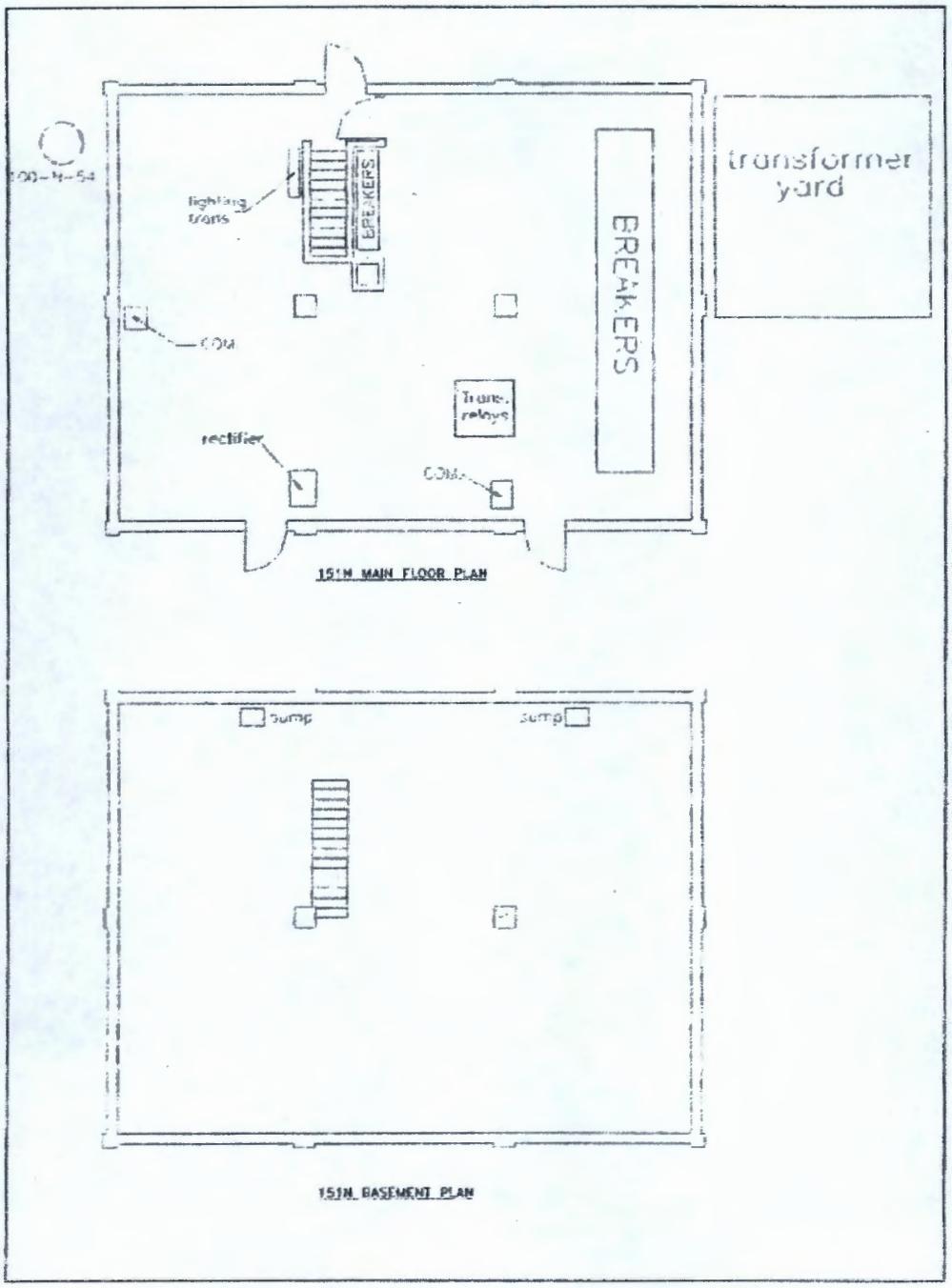
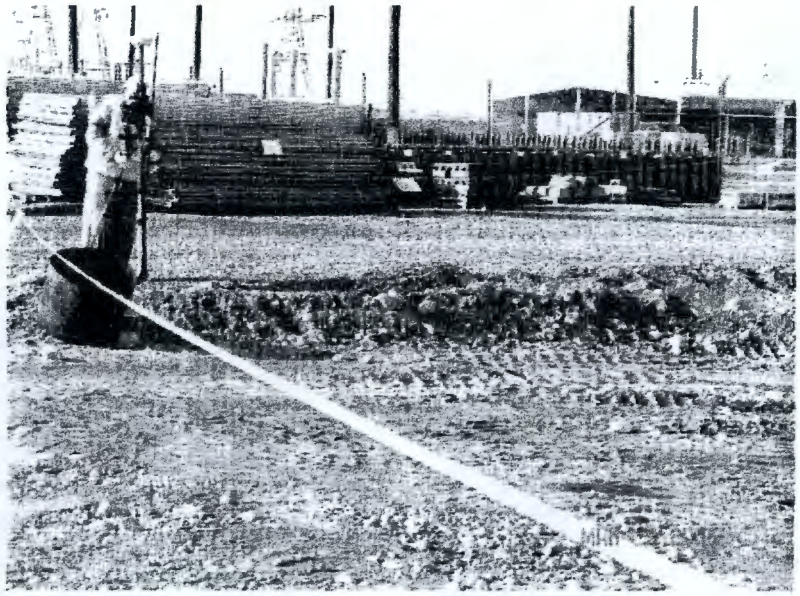
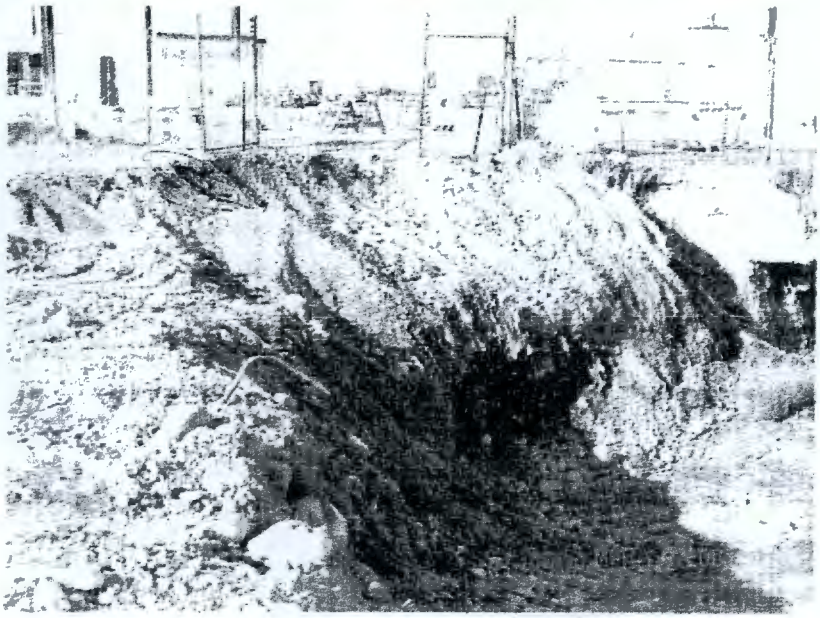
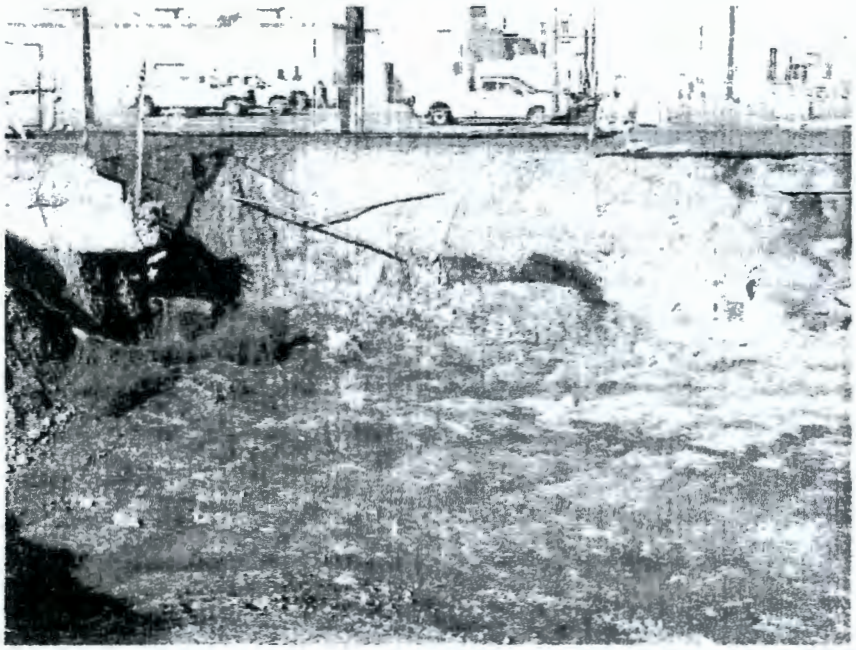
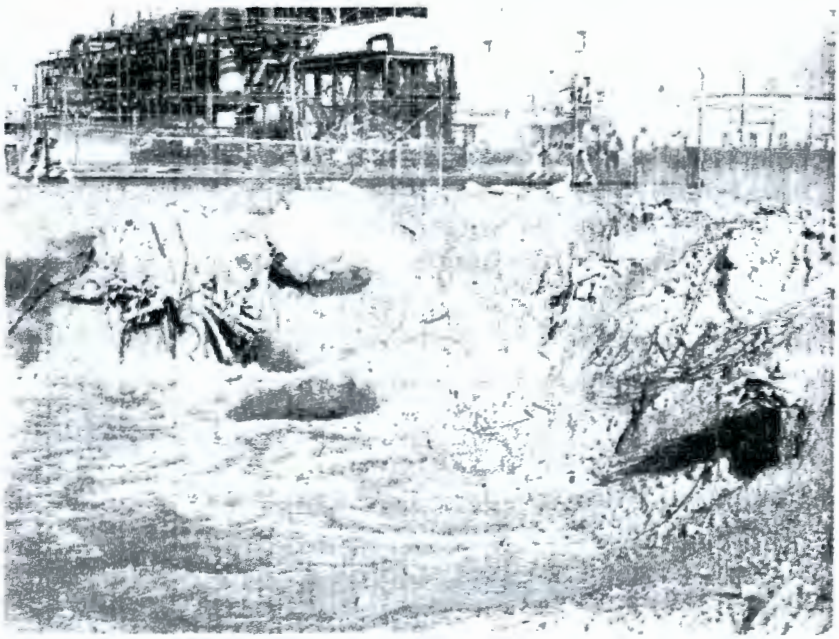


Figure 2
Post Demolition Photographs
151-N Electrical Substation









Attachment 1

Summary of Analytical Results

Characterization Sample Summary

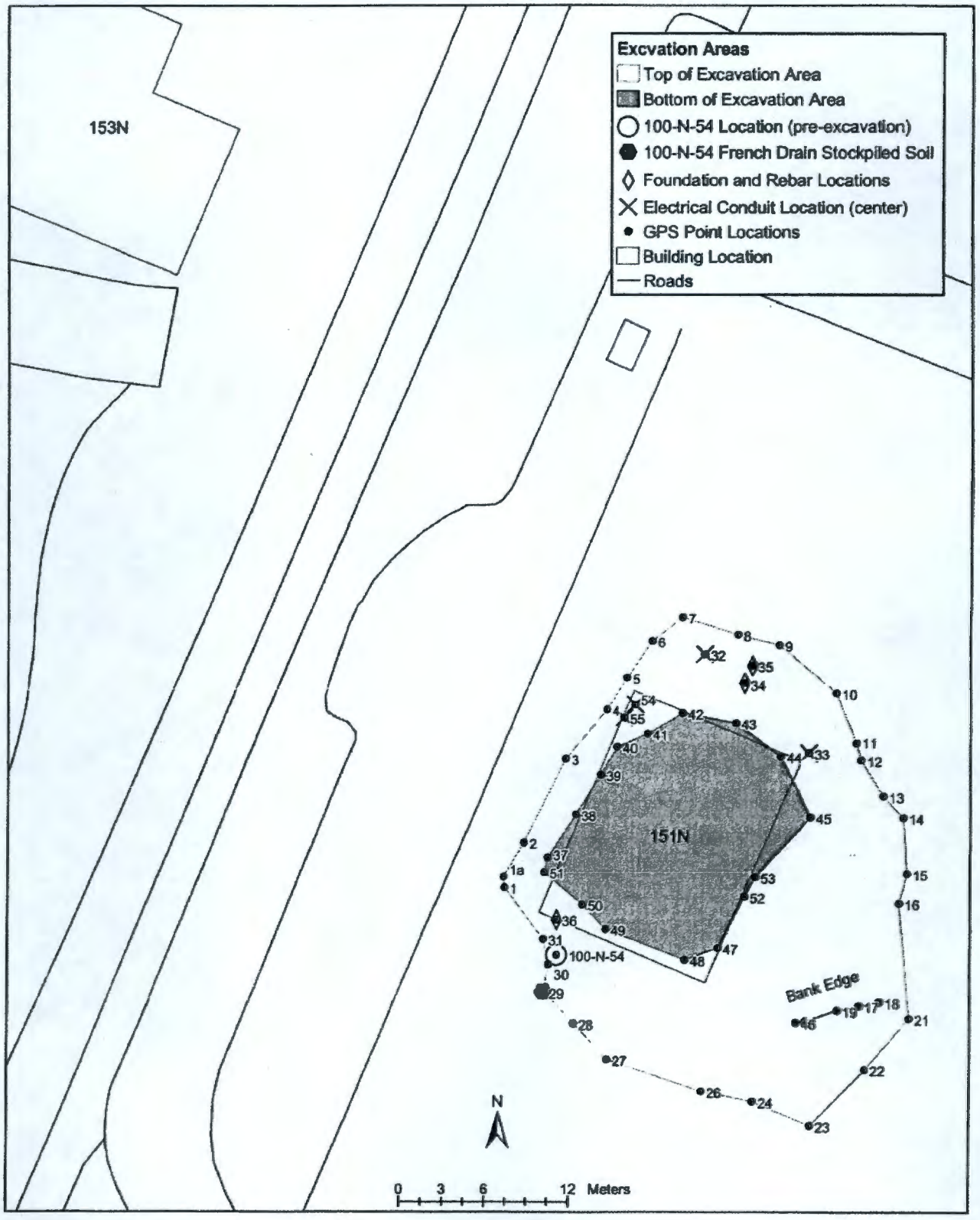
151-N Electrical Substation

HEIS #	Sample Date	logbook	logbook page	Location	Location detail	comments	COC	SDG
J10DY9	31-Oct-2005	EL-1516-7	88	151-N	roof,	white paint/tar surface, yellow foam, tar/gravel on base	RC-006-020	05-A-6065
J10F00	31-Oct-2005	EL-1516-7	88	151-N	roof,	white paint/tar surface, yellow foam, tar/gravel on base	RC-006-020	05-A-6065
J10F01	31-Oct-2005	EL-1516-7	88	151-N	roof,	white paint/tar surface, yellow foam, tar/gravel on base	RC-006-020	05-A-6065
J10F02	31-Oct-2005	EL-1516-7	93	151-N	drain line, basement, straight runs	white painted cloth wrap over yellow fibrous insulation	RC-006-020	05-A-6065
J10F03	31-Oct-2005	EL-1516-7	93	151-N	drain line, basement, straight runs	white painted cloth wrap over yellow fibrous insulation	RC-006-020	05-A-6065
J10F04	31-Oct-2005	EL-1516-7	93	151-N	drain line, basement, elbow	white painted cloth wrap over white granular & fibrous mud	RC-006-020	05-A-6065
J10F05	31-Oct-2005	EL-1516-7	93	151-N	drain line, basement, straight runs	white painted cloth wrap over yellow fibrous insulation	RC-006-020	05-A-6065
J10F06	31-Oct-2005	EL-1516-7	94	151-N	fire line, elbow	red painted cloth over yellow fibrous insulation	RC-006-020	05-A-6065
J10F07	31-Oct-2005	EL-1516-7	94	151-N	fire line, straight run	red painted cloth over yellow fibrous insulation	RC-006-020	05-A-6065
J10F08	31-Oct-2005	EL-1516-7	94	151-N	fire line, valve	red painted cloth over yellow fibrous insulation	RC-006-020	05-A-6065
J10F09	31-Oct-2005	EL-1516-7	94	151-N	cold water supply, elbow, basement	white painted cloth wrap over yellow fibrous insulation	RC-006-020	05-A-6065
J10F10	31-Oct-2005	EL-1516-7	94	151-N	cold water supply, straight runs, main level	white painted cloth wrap over yellow/white fibrous insulation	RC-006-020	05-A-6065
J10F11	31-Oct-2005	EL-1516-7	94	151-N	cold water supply, straight runs, main level	white painted cloth wrap over yellow/white fibrous insulation	RC-006-020	05-A-6065
J10W38	28-Dec-2005	EI-1516-8	22	151-N	silica sand	silica sand	RC-006-035	RCF1380
J10W39	28-Dec-2005	EI-1516-8	22	151-N	soil from bottom of 100-N-54 French drain	material was red stained soil	RC-006-035	RCF1380
J10W40	28-Dec-2005	EI-1516-8	22	151-N	soil from bottom of 100-N-54 French drain	material was red stained soil	RC-006-035	RCF1380
J10W41	28-Dec-2005	EI-1516-8	22	151-N	silica sand	silica sand		K0160
J10W42	28-Dec-2005	EI-1516-8	22	151-N	soil from bottom of 100-N-54 French drain	material was red stained soil		K0160
J10W43	28-Dec-2005	EI-1516-8	22	151-N	soil from bottom of 100-N-54 French drain	material was red stained soil		K0160
J118T5	22-Feb-2006	EI-1516-8	92	151-N	151-N excavation "black sands"	soil was collected by a front end loader from a point within the excavation opposit of the 100-N-45 french drain and	RC-006-052	K0241

Attachment 2

Civil Survey

Excavation Boundary of the 151-N Building



GPS Point Report

Project : 100N-blds2

User name	maaye	**Date & Time**	7:37:16 AM 3/23/2006
Coordinate System	US State Plane 1983	**Zone**	Washington South 4602
Project Datum	NAD 1983 (Conus)		
Vertical Datum	NAD83	**Geoid Model**	GEOID99 (Conus)
Coordinate Units	Meters		
Distance Units	Meters		
Height Units	Meters		

Name	Northing	Easting	Elevation	Feature Cod
1	149308.246m	571311.783m	140.197m	excav-bndry-top
2	149311.454m	571313.158m	140.273m	excav-bndry-top
3	149317.470m	571316.095m	140.183m	excav-bndry-top
4	149321.001m	571319.051m	140.305m	excav-bndry-top
5	149323.314m	571320.482m	140.371m	excav-bndry-top
6	149325.972m	571322.283m	140.287m	excav-bndry-top
7	149327.690m	571324.450m	140.181m	excav-bndry-top
8	149326.444m	571328.409m	140.161m	excav-bndry-top
9	149325.674m	571331.361m	140.188m	excav-bndry-top
10	149322.193m	571335.459m	140.206m	excav-bndry-top
11	149318.588m	571336.896m	139.872m	excav-bndry-top
12	149317.366m	571337.248m	139.745m	excav-bndry-top
13	149314.790m	571338.805m	139.616m	excav-bndry-top
14	149313.231m	571340.239m	139.713m	excav-bndry-top
15	149309.213m	571340.540m	139.733m	excav-bndry-top
16	149307.095m	571339.971m	139.722m	excav-bndry-top
17	149299.797m	571337.160m	139.958m	excav-bndry-top
18	149300.087m	571338.595m	140.058m	excav-bndry-top
19	149299.462m	571335.594m	139.952m	excav-bndry-top
20	149298.698m	571333.329m	139.885m	excav-bndry-top
21	149298.919m	571340.717m	140.150m	excav-bndry-top
22	149295.303m	571337.591m	140.122m	excav-bndry-top
23	149291.319m	571333.668m	140.369m	excav-bndry-top
24	149293.043m	571329.601m	140.355m	excav-bndry-top
26	149293.778m	571325.935m	140.212m	excav-bndry-top
27	149296.012m	571319.152m	140.314m	excav-bndry-top
28	149298.569m	571316.716m	140.323m	excav-bndry-top
29	149300.797m	571314.596m	140.656m	fd
30	149302.747m	571314.946m	140.254m	excav-bndry-top
31	149304.543m	571314.558m	140.317m	excav-bndry-top
32	149325.003m	571326.041m	139.040m	pipe-center
33	149317.888m	571333.502m	138.686m	pipe-center
34	149322.942m	571328.930m	137.865m	rebar-bottom
35	149324.179m	571329.463m	138.563m	rebar-top
36	149305.938m	571315.510m	139.133m	rebar-top
37	149310.369m	571314.846m	137.392m	toe
38	149313.472m	571316.823m	137.300m	toe
39	149316.324m	571318.602m	137.117m	toe
40	149318.316m	571319.790m	136.934m	toe

41	149319.247m	571321.978m	136.743m	toe
42	149320.749m	571324.484m	136.521m	toe
43	149320.048m	571328.303m	136.374m	toe
44	149317.658m	571331.530m	136.509m	toe
45	149313.263m	571333.641m	137.032m	toe
46	149298.606m	571332.667m	139.893m	toe
47	149303.894m	571327.080m	136.842m	toe
48	149303.050m	571324.710m	136.643m	toe
49	149305.237m	571319.011m	136.828m	toe
50	149307.007m	571317.340m	137.106m	toe
51	149309.320m	571314.609m	137.043m	toe
52	149307.568m	571328.967m	136.555m	toe
53	149308.979m	571329.729m	136.390m	toe
54	149321.346m	571321.092m	138.465m	pipe-end
55	149320.421m	571320.296m	138.506m	pipe-end
100-N-54	149303.414m	571315.526m	140.095m	french-drain
1a	149309.025m	571311.736m	140.213m	excav-bndry-top
lz13	149290.854m	571331.809m	140.219m	cp
lz14	149311.181m	571342.645m	139.859m	cp

3/23/2006C:\Program Files\Trimble\Trimble Geomatics Office

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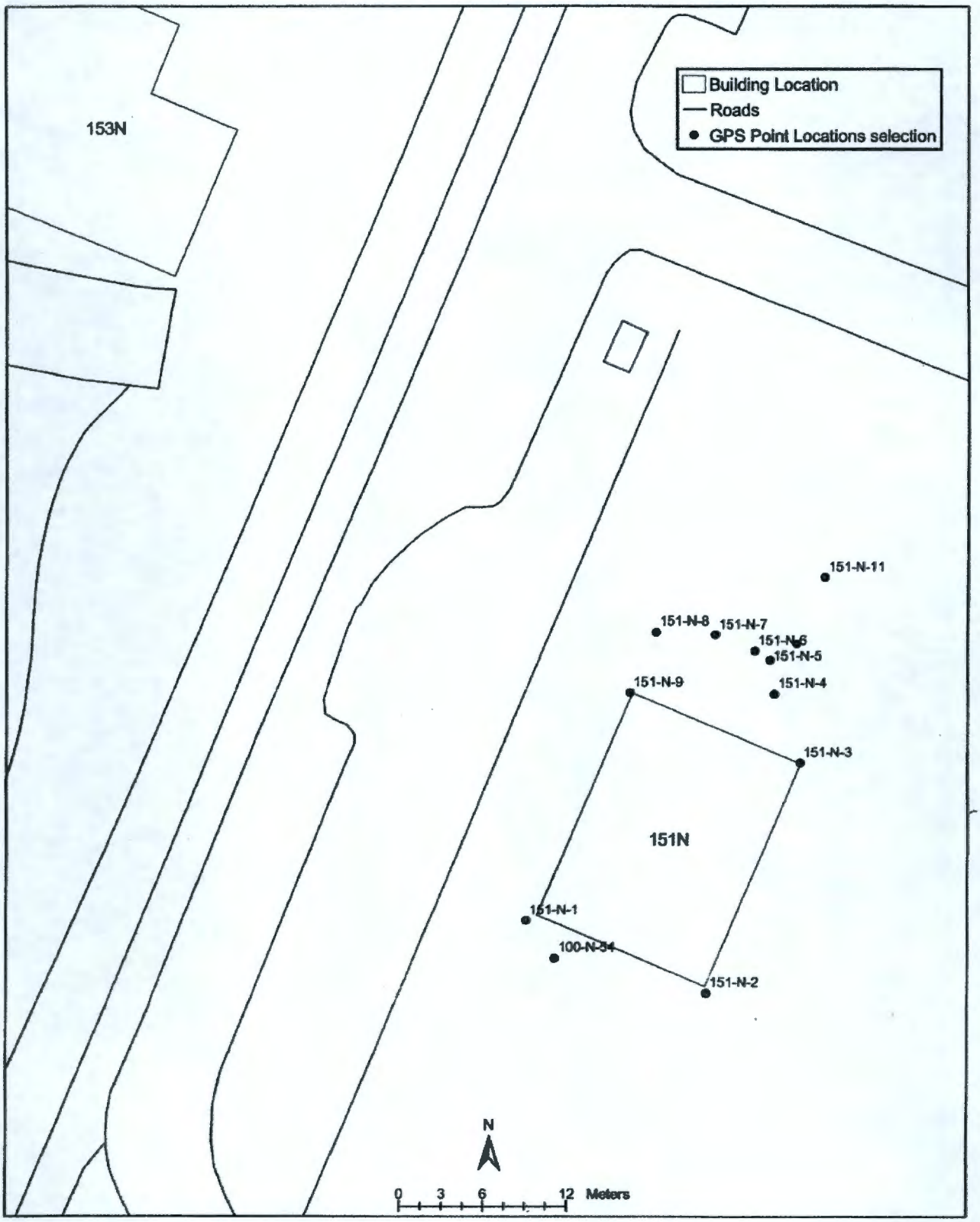
Excavation Boundary of the 151-N Building



Survey Data Report

Project : 100N-BUILDINGS

User name	maaye	**Date & Time**	1:08:07 PM 3/20/2006
Coordinate System	US State Plane 1983	**Zone**	Washington South 4602
Project Datum	NAD 1983 (Conus)		
Vertical Datum		**Geoid Model**	GEOID99 (Conus)
Coordinate Units	Meters		
Distance Units	Meters		
Height Units	Meters		

Survey Project Name/Title:	100N-BUILDINGS
Survey Purpose:	GPS 151N building and features prior to D&D
Requested By:	Dave Shea
General Site Location:	100-N
Charge Code:	per building- so several
Field Surveyor:	MARGO AYE
Computer Software Used:	MARGO AYE
Survey Equipment Used:	5800
Control Monuments Used:	Wells 119-N-26 and 119-N-72
Survey Method:	RTK
Estimated Horizontal Precision:	<=0.020m
Estimated Vertical Precision:	<=0.050m
Fieldwork Start Date:	November 29, 2005
Fieldwork Completion Date:	December 12, 2005
Notes:	

Name	Northing	Easting	Elevation	Feature Cod
100-N-54	149303.414m	571315.526m	140.095m	french-drain
151-N-1	149306.079m	571313.471m	138.298m	corner of building
151-N-10	149325.921m	571332.689m	139.890m	old-conc-piling
151-N-11	149330.720m	571334.729m	139.895m	old-conc-piling
151-N-2	149300.956m	571326.268m	139.715m	corner of building
151-N-3	149317.364m	571332.933m	139.900m	corner of building
151-N-4	149322.299m	571331.082m	139.953m	concrete-transformer
151-N-5	149324.738m	571330.748m	139.958m	concrete-transformer
151-N-6	149325.393m	571329.664m	139.913m	concrete-transformer
151-N-7	149326.569m	571326.831m	139.792m	concrete-transformer
151-N-8	149326.793m	571322.652m	139.801m	concrete-transformer
151-N-9	149322.412m	571320.830m	139.938m	corner of building

Back to top

Document/CCN Number: D4-100N-0002

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Attachment 2: Facility Information (4 pages)

Facility Information

Introduction

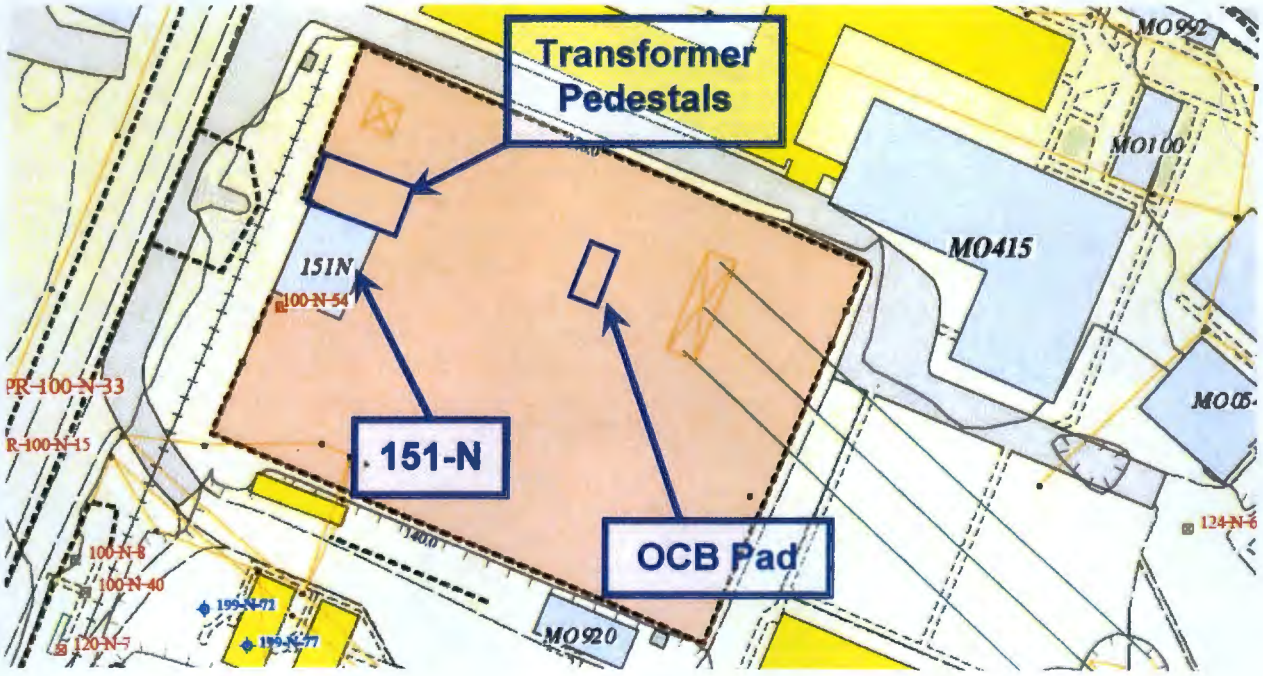
This attachment, along with all subsequent attachments, serves as a supplement to the previous Attachment 1. Attachment 1 addresses much of the history, characterization, and final status at the completion of deactivation, decontamination, decommissioning, and demolition (D4) activities of the 151-N 230-KV Electrical Substation, underlying footings and basement slab, adjacent transformers, and adjacent Waste Information Data System (WIDS) site 100-N-54, all formerly located at the 100-N Area. However, Attachment 1 does not provide all necessary information on the final status of these structures, nor does it address the nearby transformer pedestals. This additional information is provided below.

Site Information

Following demolition, load out, and backfill of the 151-N 230-KV Electrical Substation in 2006, two contaminated structures remained within the 151-N switchyard. One remaining structure consisted of two reinforced concrete pedestals that held the two transformers north of the 151-N building. These transformer pedestals measured 19 feet by 58 feet in area and extended from 6 feet below grade to 3 feet above grade. The other remaining structure is the Oil Circuit Breaker (OCB) pad which held three OCBs and measured 24 feet by 9 feet in area and extended 11 feet below grade. It is located near the center of the 151-N switchyard, approximately 150 feet east of the transformer pedestals.

The transformer pedestals, OCB pad, and underlying soils have been classified as WIDS site 100-N-86. A map of these structures is provided in Figure 1. Photographs are included in Attachment 3.

Figure 1. Location of the 151-N Facility, Transformer Pedestals, and OCB Pad



Radiological and Industrial Hygiene Surveys

Table 1 summarizes the industrial hygiene, radiological control, and asbestos sampling and surveying performed at the 151-N Facility and Transformer Pedestals. Samples and surveys addressed in Attachment 1 are not summarized below, but are mentioned by reference to Attachment 1.

Table 1. Summary of Samples/Surveys Collected for the 151-N Facility and Transformer Pedestals

Type	Quantity	Method Detection Limits	Results
Radiological Scoping Surveys	N/A	N/A	No radiological scoping survey was performed at the transformer pedestals.
Pre-Demolition and in- Process Radiological Surveys	N/A	N/A	No radiological scoping survey was performed at the transformer pedestals. Pre-demolition and in-process surveys performed at the 151-N facility are addressed in Attachment 1.
Post-Demolition Radiological Surveys	7 Surveys	Beta-gamma – 1000 removable/ 5,000 fixed[a] Alpha – 20 removable/ 100 fixed[a]	Five radiological surveys were performed at containers of demolition debris prior to shipment for disposal. As mentioned in Attachment 1, one radiological survey was performed at the 151-N excavation to support down-posting. Finally, one radiological survey was performed at pallets that were stored in the 151-N laydown area nearly a year after the 151-N down-posting survey was performed. Radiological contamination was not detected during any of these seven surveys.
Global Positioning Environmental Radiological Surveyor (GPERS) Surveys	1 Survey	N/A	373 data points were taken at the transformer pedestals. All results were less than 1.5 times background. It should be noted that readings that are under 1.5 times the background count are considered to be insignificant. The GPERS survey map is included in Attachment 4.

Industrial Hygiene Surveys, Scoping and in Process	N/A	N/A	No industrial hygiene survey was performed at the transformer pedestals. Industrial hygiene surveys performed at the 151-N facility are addressed in Attachment 1.
Asbestos – Thermal System Insulation and Miscellaneous Material	N/A	N/A	No asbestos sample was taken from the transformer pedestals because it was constructed of concrete. Asbestos samples taken from the 151-N facility are addressed in Attachment 1.
In-Process and Closeout Soil Samples	N/A	N/A	No soil sample was taken that pertained to the transformer pedestals or the OCB pad. Soil samples were taken from the 151-N excavation, including the adjacent 100-N-54 WIDS site, as addressed in Attachment 1.
[a] – dpm/100 cm^2			

Civil Survey Information

Pre and post-demolition Global Positioning System (GPS) civil surveys were performed at the location of the transformer pedestals. Copies of these GPS surveys are provided in Attachment 5. Additionally, pre and post-demolition GPS civil surveys were performed at the 151-N facility. Copies of these surveys are provided in Attachment 1.

Anomalies Discovered During Demolition

No anomaly was encountered during demolition of the transformer pedestals. Anomalous soil was encountered and sampled during demolition of the 151-N facility, as addressed in Attachment 1.

Final Building Status and Underlying Soil

Demolition of the 151-N facility began in December of 2005 and was completed in March of 2006. This demolition included the underlying basement slab and footings, the two adjacent transformers on the north side of the 151-N facility, and the adjacent 100-N-54 WIDS site on the south side of the 151-N facility. The resulting debris was loaded into roll-off containers and shipped to the Environmental Restoration Disposal Facility (ERDF) for disposal. Following demolition and load out, the 151-N facility excavation was backfilled with clean soil and graded to match the surrounding terrain. Contaminated soil was discovered below the 100-N-54 excavation. Accordingly, straw was placed at the bottom extent of the excavation and clean soil was used to backfill the excavation on an interim basis. Additional information is provided in Attachment 1. Remediation of the soil within the 100-N-54 boundary will be necessary. This remediation will be performed by the Field Remediation organization (FR). This additional remediation will not be deferred to FR as it remains within FR work scope.

The transformer pedestals were demolished to approximately three feet below grade in April of 2012. The resulting debris was loaded into roll-off containers and shipped to the ERDF for disposal. Load out was completed in April of 2012. Approximately three vertical feet of the transformer pedestals remains within the excavation, which has not been backfilled and remains open. Remediation of the remaining concrete and underlying soil will be necessary. This remediation will be performed by FR as the excavation footprint is part of the 100-N-86 WIDS site. Accordingly, this additional remediation will not be deferred to FR as remediation and closeout of the 100-N-86 WIDS site exists within FR work scope.

The OCB pad has not been demolished. The three OCBs were removed from the pad prior to demolition of the 151-N facility. The OCB pad, and potentially the underlying soil, require remediation. As the OCB pad is part of the 100-N-86 WIDS site, this remediation will be performed by FR.

In addition to WIDS sites 100-N-54 and 100-N-86, WIDS sites 100-N-84:1 and 100-N-84:3 lie underneath, or adjacent to, the footprints of these structures. The 100-N-84 series WIDS sites were underground pipelines that transported steam condensate and raw, potable, and filtered water. Future remedial activity is not planned for 100-N-84:1 or 100-N-84:3 as both are expected to be closed out with a No Action Reclassification Status.

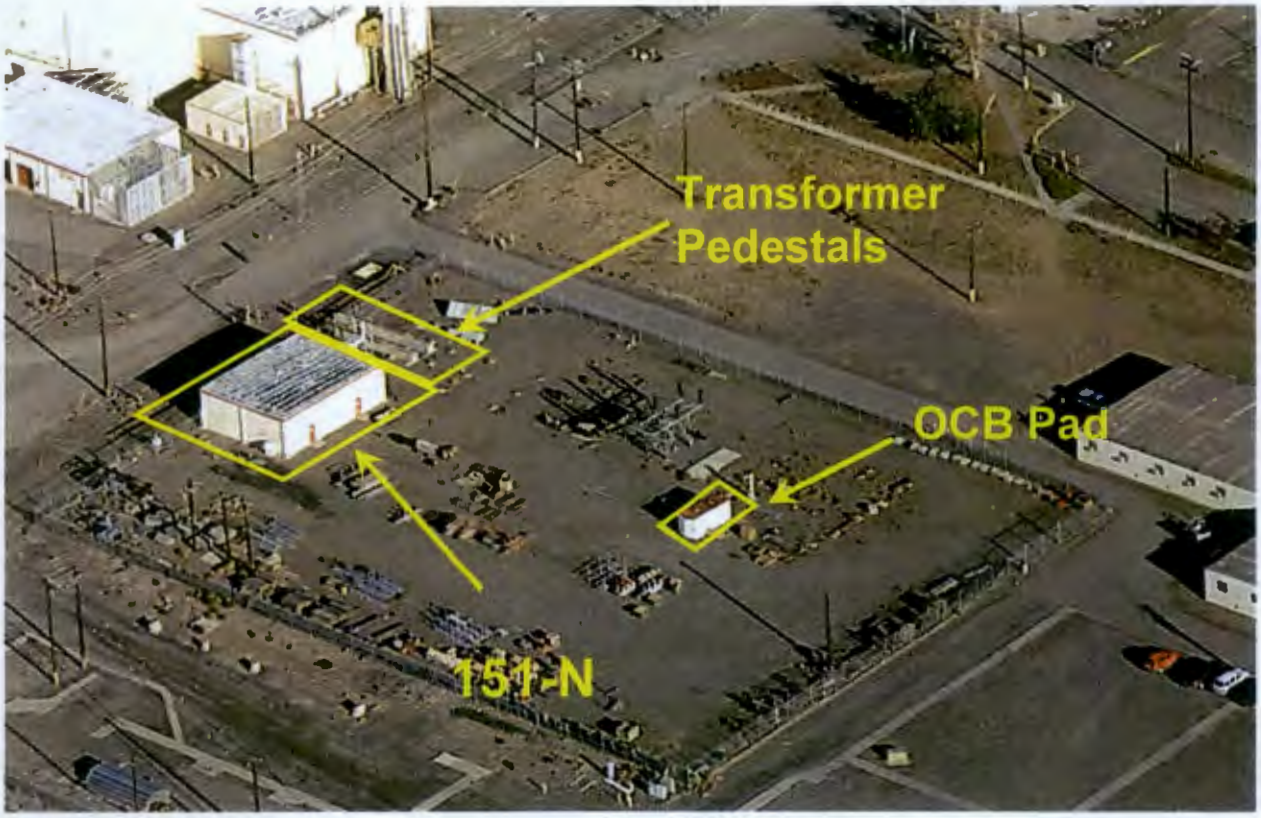
A GPERS survey and visual inspection were performed at the transformer pedestal excavation. No stained soil, anomaly, or radiological contamination was identified. No GPERS survey or visual inspection was performed at the OCB pad. Table 2 summarizes the contaminants of concern for the demolition of the 151-N facility and the transformer pedestals. Photographs are included in Attachment 3.

Table 2. Contaminants of Concern for Facility Demolition

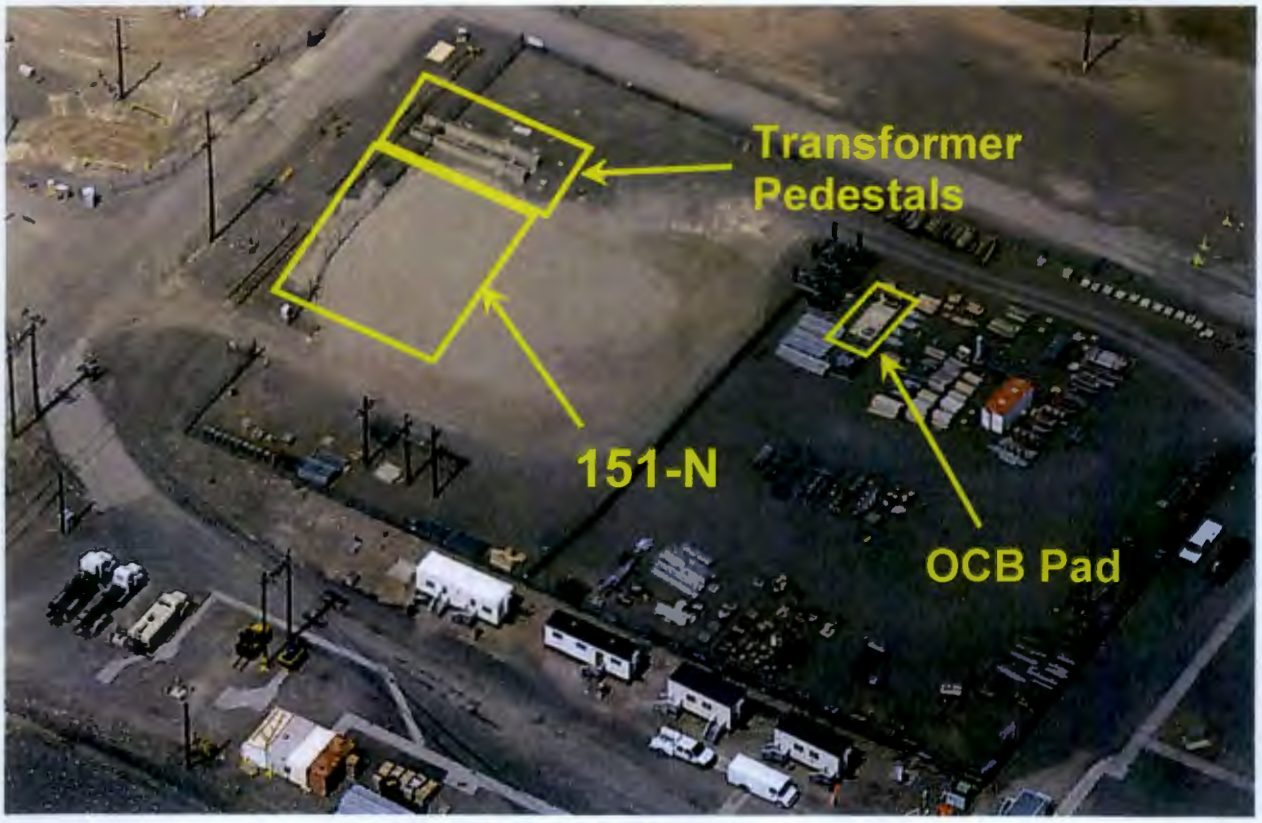
Contaminant of Concern	Management Practice/Determination of No Impact to the Soil
Radiological Contamination	**151-N Facility:** Demolition was performed under radiological controls. Following demolition, a radiological down-posting survey did not detect radiological contamination. While no GPERS survey was performed at the excavation, a GPERS survey was performed at the adjacent transformer pedestal excavation. Radiological contamination was not identified during this GPERS survey. **Transformer Pedestals:** No contaminant of concern existed for demolition. Radiological contamination was not identified during a GPERS survey at the excavation. No stained soil or anomaly was identified during a post-demolition visual inspection. The GPERS survey is included in Attachment 4.

Attachment 3: Photographs (2 pages)

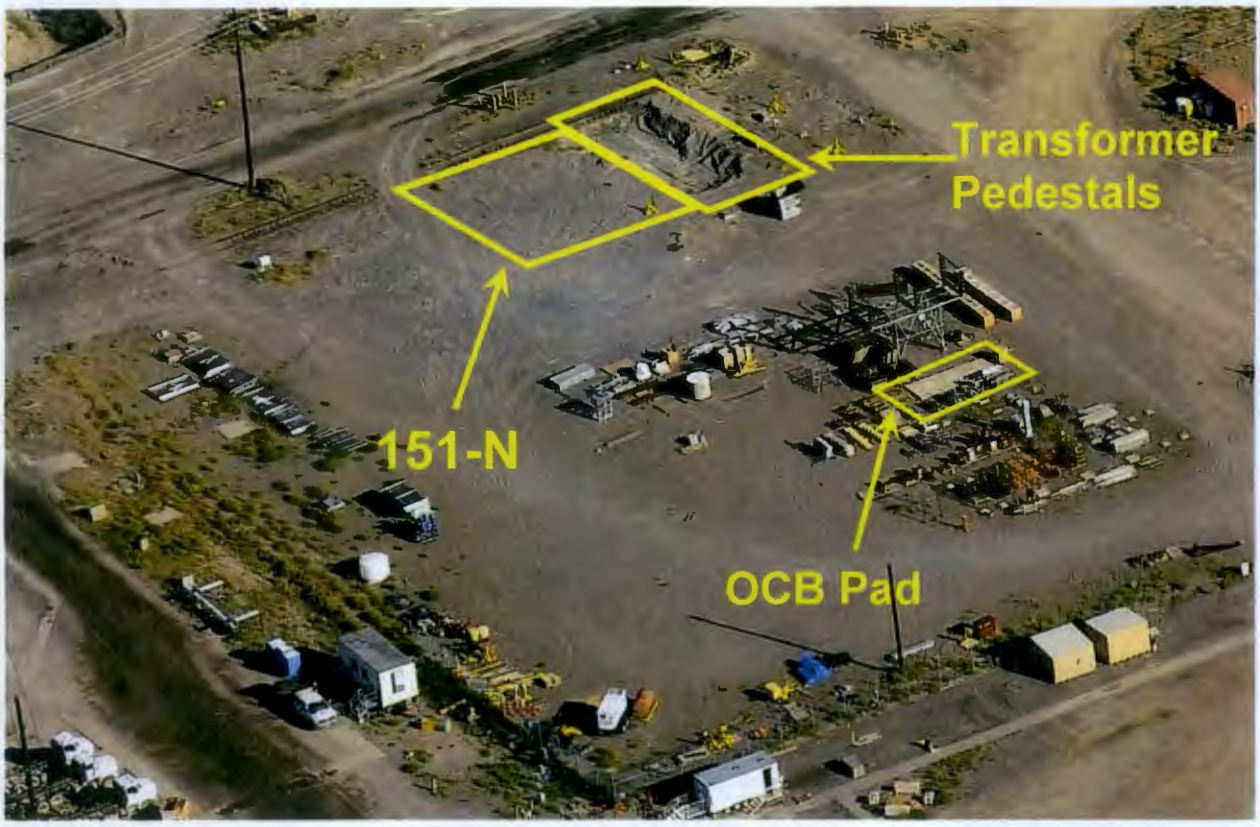
Attachment 3: Photographs (2 pages)



151-N Before Demolition



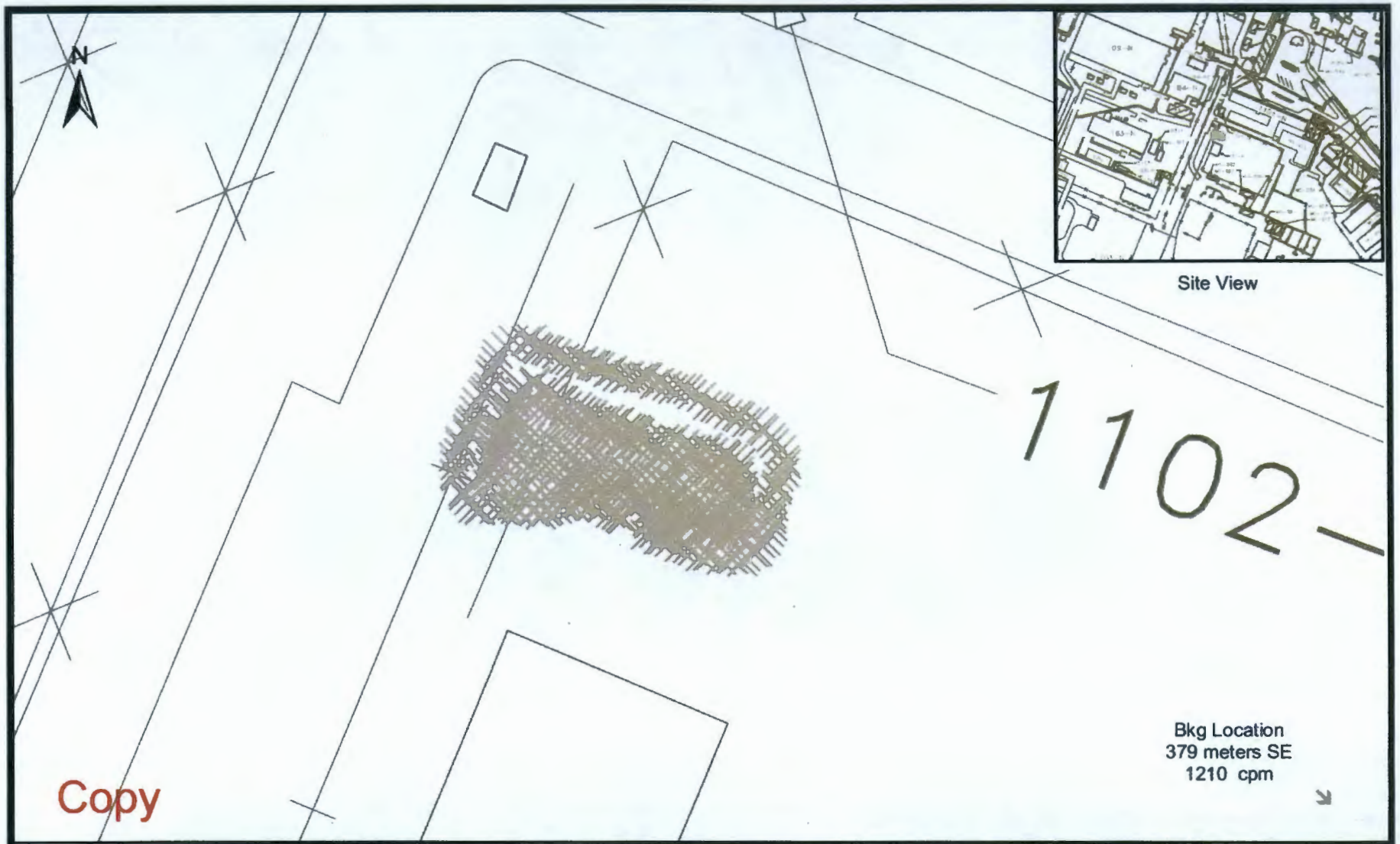
151-N After Demolition



151-N After Demolition & Transformer Pedestal Removal

Transformer Pedestal Excavation

Attachment 4: GPERS Survey (1 page)



Legend	Summary Statistics
NET CPM	Coverage File: N142
	Number of Data Pnts: 373
	Type of Survey: gamma
× <1815	Max GCPM: 2146
1815 - 5000	Avg Bkg CPM: 1210
5000 - 10000	Survey Date: 5/21/2012
10000 - 25000	Area Surveyed: 200 m^2
25000	Project File: ESRFRM120079
	Pdf File: ESRFRM120079C

100N D4
151-N
GPERS Radiological Survey
Gamma Track Map

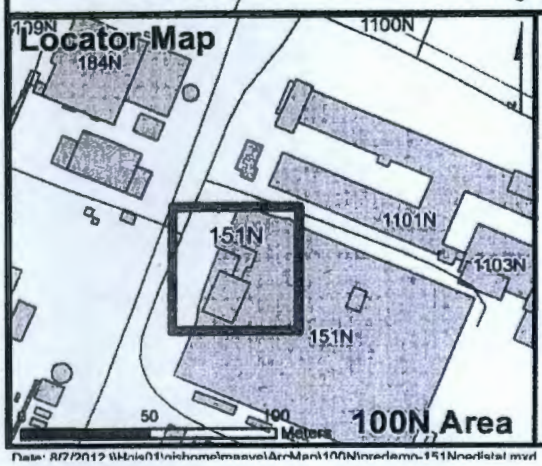
0 2 4 6 8 10 Meters

Environmental Excellence HANFORD

EBERLINE SERVICES HANFORD, INC.

Survey Map Prepared By Bruce Coomer, ESI

Attachment 5: GPS Civil Surveys (3 pages)



GPS Pre Demo Survey Report For 151N Substation Pedestal

Building Location Pre-Demolition

× GPS Pre Demolition Survey Points:

Name	Feat_Code	Northing	Easting	Elevation
151-N-10	conc-piping	149325.921	571332.689	139.89
151-N-11	conc-piping	149330.7199	149330.7199	139.895
151-N-12	conc-piping	149332.1821	149332.1821	139.895
151-N-13	conc-piping	149336.1404	149336.1404	139.895

Date: 8/7/2012 \\Hois01\oishome\masyel\ArcMap\100N\predemo-151Npedistal.mxd

0636123

GPS Post Demo Survey for 151N Pedestal

Project : 151N-pedestal

User name	maaye	**Date & Time**	2:56:14 PM 7/30/2012
Coordinate System	US State Plane 1983	**Zone**	Washington South 4602
Project Datum	(WGS 84)		
Vertical Datum	NAVD88	**Geoid Model**	Not selected
Coordinate Units	Meters		
Distance Units	Meters		
Height Units	Meters		

Survey Project Name:	151N Pedestal Post Demolition
Date:	7/30/2012
Equipment:	5800
Survey Purpose:	Post Demo Survey
Requested By:	Thomas Yamamoto
Location:	100N
Charge Code:	
Field Surveyor:	Margo Aye
Survey Software Used:	Trimble Survey Controller, and Geomatics Office V.11
Survey Equipment Used:	5800
Control Monuments Used:	N-2
Survey Method:	RTK
Horizontal Precision:	.020m
Vertical Precision:	.050m
Fieldwork Start Date:	5/16/12
Fieldwork Completion Date:	5/16/12
Notes:	

GPS Name	Northing	Easting	Elevation	Feature Code	Time/Date
1	149332.144m	571336.744m	140.075m	top	12:17:03 16 May 2012
2	149334.158m	571334.442m	140.159m	top	12:17:17 16 May 2012
3	149335.616m	571331.142m	140.208m	top	12:17:29 16 May 2012
4	149336.534m	571326.465m	140.354m	top	12:17:45 16 May 2012
5	149338.364m	571322.120m	140.240m	top	12:17:59 16 May 2012
6	149337.284m	571320.865m	140.162m	top	12:18:20 16 May 2012
7	149333.862m	571319.294m	140.128m	top	12:18:33 16 May 2012
8	149331.194m	571318.469m	140.195m	top	12:18:57 16 May 2012
9	149328.848m	571319.776m	140.221m	top	12:19:19 16 May 2012
10	149328.976m	571323.681m	140.179m	top	12:19:32 16 May 2012
11	149329.065m	571326.493m	140.189m	top	12:19:49 16 May 2012
12	149327.433m	571329.867m	140.006m	top	12:20:07 16 May 2012
13	149326.503m	571333.940m	139.907m	top	12:20:22 16 May 2012
14	149327.721m	571335.653m	139.962m	top	12:20:36 16 May 2012
15	149332.140m	571333.360m	139.106m	toe	12:21:16 16 May 2012
16	149333.030m	571329.443m	139.039m	toe	12:21:29 16 May 2012
17	149335.020m	571324.802m	139.059m	toe	12:21:46 16 May 2012
18	149335.819m	571321.734m	139.153m	toe	12:22:06 16 May 2012
19	149332.811m	571320.551m	139.070m	toe	12:22:19 16 May 2012
20	149330.794m	571321.683m	139.318m	toe	12:22:32 16 May 2012
21	149330.017m	571322.851m	139.347m	toe	12:22:50 16 May 2012
22	149330.814m	571325.252m	139.267m	toe	12:23:07 16 May 2012
23	149329.789m	571328.482m	139.153m	toe	12:23:21 16 May 2012
24	149328.598m	571331.176m	139.154m	toe	12:23:39 16 May 2012
25	149328.040m	571333.325m	139.203m	toe	12:23:58 16 May 2012
26	149330.120m	571333.632m	139.213m	toe	12:24:18 16 May 2012
27	149331.338m	571329.599m	139.139m	topo	12:24:38 16 May 2012
28	149333.369m	571324.147m	139.087m	topo	12:24:55 16 May 2012

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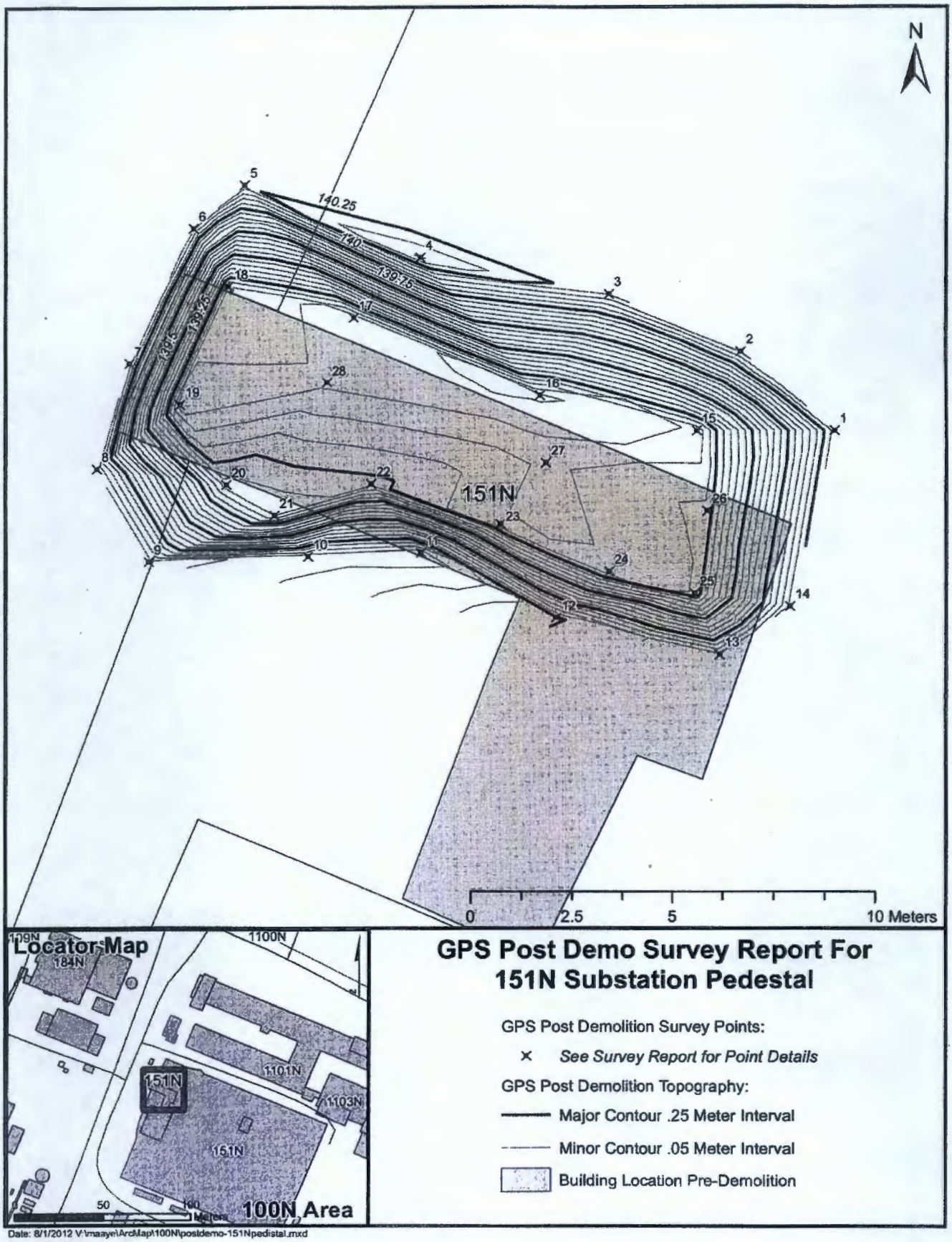
N
140.25
140
139.75
139.5
139.25
139
151N
0
2.5
5
10 Meters
Locator Map
184N
1100N
1101N
1103N
151N
151N
50
100
Meters
100N Area
GPS Post Demo Survey Report For
151N Substation Pedestal
GPS Post Demolition Survey Points:
See Survey Report for Point Details
GPS Post Demolition Topography:
Major Contour .25 Meter Interval
Minor Contour .05 Meter Interval
Building Location Pre-Demolition
Date: 8/1/2012 V:\maaye\ArcMap\100N\postdemo-151Npedistal.mxd

Attachment 6: Sampling Determination Form for the 151-N 230-KV Electrical Substation (SDF-100N-004) (5 pages)

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100-N ANCILLARY FACILITIES REMOVAL ACTION SAMPLING DETERMINATION FORM

Determination Number
SDF-100N-004

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: Electrical Substation

Building Number: 151-N

WIDS Sites Associated or Adjacent:
100-N-54 & 100-N-86

Other:
The 151-N Building proper was previously removed by D4 in 2005/2006 and the excavation was backfilled with clean soil. The portion of the transformer pedestals (100-N-86 WIDS site) that were adjacent and to the North of the 151-N building, were demolished to a level 3 feet below grade in April of 2012. Future actions will be required by FR for remediation of the 100-N-54 and 100-N-86 WIDS sites, which lie within the 151-N switchyard.

C. INFORMATION SOURCES

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

Historical Site Assessment: N/A

Site Walkdown: Visual Inspection of the 151-N transformer pedestals excavation soils. CCN 166159

IH Characterization Report: N/A

Radiological Survey: Radiological Survey Record: RSR-IFSM-06-0192 (Downposting)
Radiological Survey Records: RSR-IFSM-06-0009 / 0112 / 0176 / 0185 / 0188
Global Positioning Environmental Radiological Surveyor (GPERS) Survey Record: ESFRM120079C

IHC/FHC Document: N/A

WIDS/SIS: RCC Stewardship Information System Facility Summary Report: 151-N, 100-N-54, and 100-N-86

PDSR: Post-Demolition Summary Report for the 151-N Electrical Substation CCN 127176

Facility Inspection: N/A

Waste Characterization Checklist: N/A

Summary Report: Characterization Summary Report for the 151-N and 153-N Electrical Substations, 119-N Exhaust and 119-N Stack Air Monitoring Buildings, 1313-N Change Control Building, and 181-NC Sample Shack CCN 122923

Other:
Radiological Survey Record: RSR-IFSM-06-0192 (Downposting)
Radiological Survey Records: RSR-IFSM-06-0009 / 0112 / 0176 / 0185 / 0188
Global Positioning Environmental Radiological Surveyor (GPERS) Survey Record: ESFRM120079C
Asbestos Summary Report: CCN 125283
Transformers at 153-N and 151-N: CCN 124396
D4 Project Soils and/or Below Grade Structures Completion Form 151-N Electrical Substation: D4-100N-0002
Sampling and Analysis Instruction to Support Demolition of the 151-N and 153-N Facilities: WCH-35
100-N-86, 151-N Substation Transformer and Oil Circuit Breakers Remove, Treat, and Dispose Report (CCN 154748)
Work Package: 2005-09-20-005 A: 100 Area Building and Structure Demolition
Work Package: 2005-09-20-003 A: 100 Area TSI Asbestos Abatement
Work Package: 2005-09-20-002 A: 100 Area Hazardous Material Removal
Photographs of 151-N Post-Demolition, Time-Stamped 03/09/2006: CCN 127176-Figure 2

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100-N ANCILLARY FACILITIES REMOVAL ACTION SAMPLING DETERMINATION FORM

Determination Number
SDF-100N-004

D. HAZARDOUS SUBSTANCES

Check all that apply:

☐ None ☒ Asbestos containing material ☒ Lead ☒ PCBs/PCB Articles ☒ Oils/Greases

☒ Chemicals List: Inductively coupled plasma (ICP) metals (CCN 154748 pg. 4) for Transformer pedestals (100-N-86 WIDS site)

☒ Radiological Contamination ☒ Mercury/Mercury Devices

☐ Other:

References/Comments:
Asbestos: CCN 125283 pgs. 2-3, and Appendices B & D
Lead: Work Package 2005 09 20 005 A WCH Task Instruction pg. 1
PCBs/PCB Articles: WCH-35 pg. 1 & CCN 124396
Oils/Greases: WCH-35 pg. 1 & CCN 124396
Radiological Contamination: Work Package 2005 09 20 005 A WCH Task Instruction pg. 1
Mercury/Mercury Devices: Work Package 2005 09 20 005 A WCH Task Instruction pg. 1

Liquids: ☒ Yes ☐ No

If yes, describe source and nature of liquids:
The 151-N facility transformers contained oil. The oil consisted of 220 ppm PCBs until it was replaced with non PCB oil in 1992 (WCH-35 pg. 1). Oil remained in the transformer until at least 10/25/2005 (CCN 124396). Demolition did not begin until 12/1/2005 (WCH-35, pg. 1, CCN 127176 pg. 1), following draining and removal of the transformers.

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

As verified by what documentation:
All hazardous materials listed on the Hazmat Removal Checklist were removed from the facility prior to demolition (Work Package 2005 09 20 002 A WCH Task Instruction pg. 1).

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

References/Comments:
The 151-N building contained the potential to either be contaminated, or had the potential to release hazardous materials to the environment during its demolition (CCN 122923 pg. 2).

List any hazardous materials left in the building for demolition:
None.

Does review of historical records and process knowledge indicate a potential for radiological or chemical contamination to be present in the facility?
While no Global Positioning Environmental Radiological Surveyor (GPERS) survey was conducted for the 151-N building excavation footprint directly, there was one performed for the transformer pedestal directly adjacent the building (100-N-86 WIDS site), and no contamination was identified (ESFRM120079C). Additionally, there appeared to be no potential for the presence of radiological contamination as indicated by no detectable radiation levels identified in the downposting radiological survey (RSR-IFSM-06-0192). In addition, none of the work progress surveys for the facility resulted in detectable levels of radiological contamination (RSR-IFSM-06-0009 / 0112 / 0176 / 0185 / 0188).

One document states that there were no processes within the 151-N building that could have led to contamination of surrounding soils (CCN 127176, pg. 1). However, the facility discharged liquid into an adjacent French drain, which became waste site 100-N-54 (CCN 127176 pg. 2). Samples were taken from the drain's underlying soils and the results indicated that actionable levels of chemical contamination were present (CCN 127176 pg. 2 and Attachment 1). There is no indication of any additional waste site in the soils underlying the former 151-N building (D4-100N-0002 pg.1 & WCH-35 pg. 3). While soils within the excavation area of the facility appeared darker than surrounding soils, sample results demonstrated that no contaminants were present above the Remedial Action Goals (RAGs) (CCN 127176 pg. 3).

Oil leaked from the transformer immediately north of the 151-N building (WCH-35 pg. 1). The transformer's concrete pedestals became part of waste site 100-N-86 (WCH-35 pg. 1 & CCN 154748 pg. 1). While no evidence of this leak was present on the pedestals, the underlying soil is stated to be potentially contaminated (WCH-35 pg. 3 & CCN 154748 pg. 1). D4 removed a portion of the transformer pedestal (100-N-86 WIDS site) that was adjacent and to the North of the

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100-N ANCILLARY FACILITIES REMOVAL ACTION SAMPLING DETERMINATION FORM

Determination Number
SDF-100N-004

151-N building. The structure was removed to a level three feet below grade and the excavation was left open for FR to perform the remainder of the work activities associated with remediation of the 100-N-86 WIDS site.

Comments:
Waste site 100-N-86 has been recommended for Remove, Treat, and Dispose (RTD) (CCN 154748 pg. 1). There is currently no approved Verification Instruction or excavation design, thus the specifics of the remediation have yet to be determined. The waste site includes concrete transformer pedestals; a concrete oil circuit breaker pad; and underlying soils, which are potentially contaminated (CCN 154748 pg. 1). None of these items have ever existed within the boundary of the 151-N building. Additionally, none of the processes associated with these items would have introduced hazardous substances into the footprint of the 151-N building. Accordingly, the condition of the waste site is not indicative of potential soil conditions within the 151-N building footprint.

E. FIELD OBSERVATIONS

Visual Inspection

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

References/Comments:
CCN 127176 Appendix 1

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

References/Comments:
CCN 127176 Appendix 1

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

References/Comments:
N/A

Is the area potentially a discovery site? ☐ Yes ☒ No

References/Comments:
N/A

Radiological Surveys

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

References/Comments:
Downposting survey RSR-IFSM-06-0192, and GPERS survey ESFRM120079C did not identify contamination.

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

References/Comments:
This question is not applicable surveys did not identify radiological contamination.

Is the area potentially a discovery site? ☐ Yes ☒ No

References/Comments:
N/A

Were the contaminated materials removed? ☐ Yes ☐ No ☒ N/A

References/Comments:

F. WIDS SITES

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

If yes, list the WIDS sites:
100-N-54 (CCN 127176 pg. 2) and 100-N-86 (CCN 166159).

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

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100-N ANCILLARY FACILITIES REMOVAL ACTION SAMPLING DETERMINATION FORM

Determination Number
SDF-100N-004

References/Comments:
Complete remediation of 100-N-54 was outside the D4 scope and residual soil was returned to the excavation (CCN 127176 pg. 2).

The 100-N-86 Transformer pedestal immediately adjacent and north of the 151-N building was demolished to a level three feet below grade. The excavation was visually inspected for signs of staining and none was observed (CCN 166159). The excavation was left open for FR to complete the remainder of their work activities.

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

References/Comments:

G. COPCs FOR SOILS AND STRUCTURES REMAINING AFTER DEMOLITION

What are the potential contaminants of concern for the remaining below-grade soil?

☒ None ☐ SVOC ☐ VOC ☐ Metals ☐ TPH ☐ Rad ☐ PCBs

☐ Other (Specify): _____

Comments:
N/A

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

Constituents detected / concentrations / rationale
Consult Sample Collection Summary below.

Sample Collection Summary
Asbestos: CCN 125283 Appendix B (for sample numbers) and Appendix D (for sample results)-Sample (HEIS) Number J10F04 is the only sample with detectable asbestos levels.
Silica Sand: Sample (HEIS) Numbers J10W38 and J10W41 (CCN 127176 Attachment 1)
Stained soil below 100-N-54: Sample (HEIS) Numbers J10W39, J10W40, J10W42, J10W43 (CCN 127176 Attachment 1) - The results of this sample exceeded the Remedial Action Goals (RAGs). The site will require further remediation by FR.
151-N Excavation Stained Soil: Sample (HEIS) Number J118T5. The lab results for this sample revealed no unusual parameters for the parameters tested (Metals, semi-volatile organics, and diesel range organics).

H. NOTES / ADDITIONAL INFORMATION

☐ Check here if additional information / data / maps / sketches are attached to this form.

If checked, list the attachment(s):

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.

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100-N ANCILLARY FACILITIES REMOVAL ACTION SAMPLING DETERMINATION FORM

Determination Number
SDF-100N-004

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	Date
David Warren	David Warren	7/9/12

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. Guercia	Date 7/3/12
Ecology Signature Nina M. Menard	Printed Name Nina M. Menard	Date 7/3/12