

Control #: D4-100N-0040

**FACILITY STATUS CHANGE FORM**

<b>Date Submitted:</b> Aug 7, 2012	<b>Area:</b> 100-N	<b>Control #:</b> D4-100N-0040
<b>Originator:</b> David Warren	<b>Facility ID:</b> 105-ND Remote and Local Air Intakes	
<b>Phone:</b> 539-6040	<b>Action Memorandum:</b> General Hanford Decommissioning Activities	

**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:**

The 105-ND was added to the scope of the *Action Memorandum for General Hanford Site Decommissioning Activities* (DOE/RL-2010-22) by Tri-Party Agreement Change Notice (TPA-CN-494) via the plug in approach identified in the Action Memorandum and corresponding *Removal Action Work Plan for River Corridor General Decommissioning Activities* (DOE/RL-2010-34). In consultation with DOE and the Lead Regulatory Agency (Ecology), it was determined that the completion and closeout process identified in the *Removal Action Work Plan for 100-N Area Ancillary Facilities* (DOE/RL 2002-70 Rev. 3) should be followed for consistency with respect to CERCLA removal activities for other 100-N Area facilities.

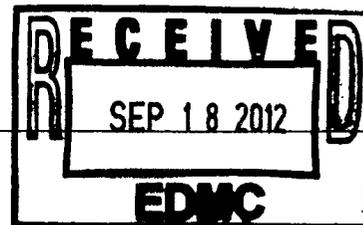
Deactivation: If required, utility isolation was performed at the facility prior to beginning demolition.

Decontamination and Decommissioning: If present, the following hazardous materials were removed prior to facility demolition: batteries, light bulbs, oils, greases, asbestos-containing material, mercury, refrigerants, and polychlorinated biphenyls. Hazardous material removal and waste disposition was performed in accordance with the *Removal Action Work Plan for 100-N Area Ancillary Facilities*, DOE/RL-2002-70. No hazardous materials were associated with the facility.

Demolition: The facility consisted of 2 structures: the Remote Air Intake, the Local Air Intake, and connected by a concrete-entrenched pipe. The Remote Air Intake was demolished in April 2012. The resulting waste was shipped to the Environmental Restoration Disposal Facility (ERDF) for disposal. The Local Air Intake was demolished in October 2009 as part of the demolition of the 109-N/105-N structures down to the exterior walls of what later became the Interim Safe Storage Enclosure. The resulting waste was shipped to the ERDF for disposal. The entrenched pipe remains in place with the exception of portions that were removed during remediation activities occurring between the remote and local intake air structures. It is estimated that 540 linear feet of the entrenched pipe remain.

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

N/A

**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.

# FACILITY STATUS CHANGE FORM

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

The 105-ND Remote Air Intake was excavated, demolished, and disposed of at the ERDF. A visual inspection of the excavation was made to identify any soil staining and Global Positioning Environmental Radiological Surveyor surveys were performed to document that no radiological contamination was present in the resulting excavations. A global positioning system (GPS) civil survey was performed to document the extent of the depression prior to the sites being backfilled and graded to match the surrounding terrain.

The 105-ND Local Air Intake was excavated, demolished, and disposed of at the ERDF. A visual inspection of the excavation was made to identify any soil staining. A GPS civil survey was performed to document the extent of the depression prior to the site being backfilled and graded to match the surrounding terrain.

A portion of the concrete-entrenched pipe remains. It was partially removed during adjacent demolition and remediation activities.

The results of the GPS civil surveys are in Attachment 4. The areas are currently clear of Industrial Hygiene and Radiological postings.

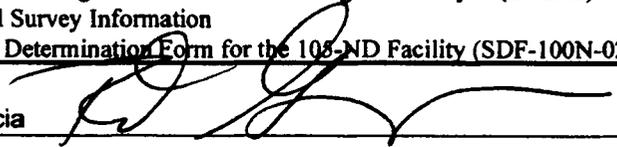
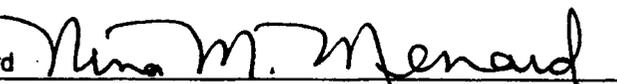
**Identification of Documented Waste Site(s) or Nature of Potential Waste Site Discovery (as applicable):**

No waste site or potential waste site was encountered as a result of the removal action for the 105-ND facility.

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 105-ND facility (SDF-100N-023) 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 have been achieved for soils and structures remaining after facility removal.

**Section 3: List of Attachments**

1. Facility Information (building history and characterization)
2. Photographs
3. Global Positioning Environmental Radiological Surveyor (GPERS) Surveys
4. GPS Civil Survey Information
5. Sampling Determination Form for the 105-ND Facility (SDF-100N-023)

Rudy Guercia 	8/28/2012
DOE-RL	Date
Nina Menard 	9/6/2012
Lead Regulator <input type="checkbox"/> EPA <input checked="" type="checkbox"/> Ecology	Date

**DISTRIBUTION:**

EPA: Dennis Faulk, B1-46  
 Ecology: Wanda Elliott, 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 (3 pages)**

# D4 Project Facility Completion Form

## Facility Information

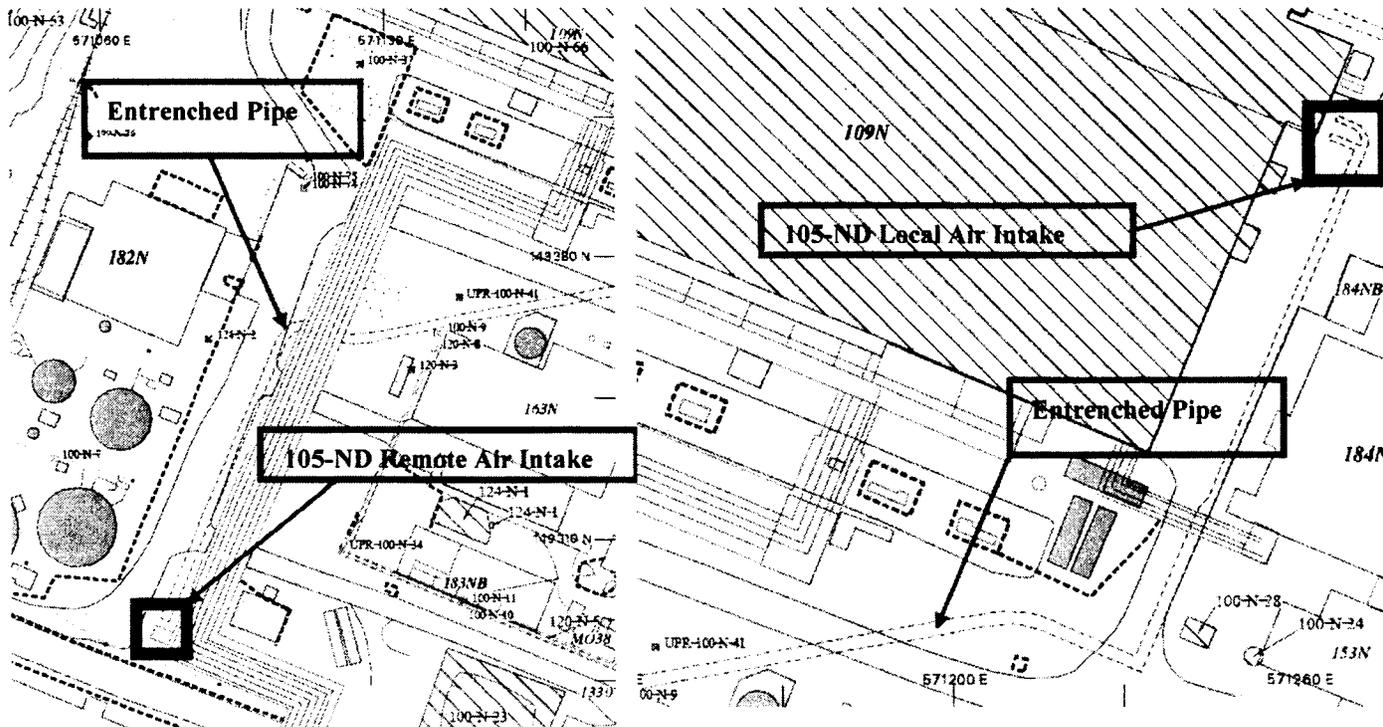
### Introduction

This document provides information regarding the history, characterization, and final status at the completion of deactivation, decontamination, decommissioning, and demolition (D4) activities of the 105-ND Local Air Intake and Remote Air Intake formerly located at the 100-N Area.

### Site Information

The 105-ND facility consisted of two above-grade structures and a connecting entrenched pipeline. The facility was used to provide emergency air for the personnel in the 105-N Control Room and the 182-N High Lift Pump House. The 105-ND Remote Air Intake was an above-grade concrete block approximately 6' by 8' wide and 12' tall, with an internal screen and a manhole cover on top. It was located adjacent to the 1802-N Pipe Trestle on the south side of the 109-N Heat Exchanger Building. The 105-ND Local Air Intake was an above-grade, cylindrical, mushroom-shaped structure located east of the 105-N Reactor Building. The two intakes were connected by a 14" diameter pipe packed in an underground concrete trench, approximately 5' 9" wide by 3' 6" tall. The pipe was connected to the 105-N Control Room Vestibule inside the 105-N Reactor Building and the 182-N High Lift Pump House. A map of the 105-ND facility is included in Figure 1. Photographs of the 105-ND facility are included in Attachment 2.

**Figure 1. Location of the 105-ND Facility**



## D4 Project Facility Completion Form

### Radiological and Industrial Hygiene Surveys

Table 1 summarizes the industrial hygiene, radiological control, and asbestos samples collected from the 105-ND facility.

**Table 1. Summary of Samples/Surveys Collected for 105-ND**

Type	Quantity	Method/Detection Limits	Results
Radiological Scoping Surveys	1 Survey	Beta-gamma – 1,000 removable/ 5,000 fixed <sup>a</sup>  Alpha – 20 removable/ 100 fixed <sup>a</sup>	All results were less than the method detection limit.
Pre Demolition and in Process Radiological Surveys	8 surveys	Beta-gamma – 1,000 removable/ 5,000 fixed <sup>a</sup>  Alpha – 20 removable/ 100 fixed <sup>a</sup>	The results of seven surveys were less than the method detection limit. One work progress survey detected beta-gamma contamination at a mud dauber nest at the 105-ND Remote Air Intake.
Post Demolition Radiological Surveys	N/A	Beta-gamma – 1000 removable/ 5,000 fixed <sup>a</sup>	A post demolition radiological survey was not performed on the 105-ND facility footprint. No radiological down-posting survey was required because the 105-ND facility was a clean facility.
Global Positioning Environmental Radiological Surveyor (GPERS) Surveys	2 surveys  (1) Local Air Intake  (1) Remote Air Intake	N/A	<p>A total of 2139 data points were taken at the Local Air Intake footprint. All results were less than two times background. It should be noted that readings from this location that are under two times the background count are considered insignificant.</p> <p>A total of 261 data points were taken at the Remote Air Intake footprint. All results were less than 1.5 times background. It should be noted that readings from this location that are under 1.5 times the background count are considered insignificant.</p> <p>GPERS survey maps are included in Attachment 3.</p>
Industrial Hygiene Surveys, Scoping and in Process	N/A	N/A	Industrial Hygiene surveys were not performed as the 105-ND facility did not possess any unique IH Hazards.
Asbestos – Thermal System Insulation and Miscellaneous Material	N/A	N/A	Under the RCC contract, a visual asbestos inspection was conducted of the 105-ND facility by a certified asbestos inspector. Potential asbestos containing material was not found during the inspection and no samples were taken.
<sup>a</sup> – dpm/100 cm <sup>2</sup>			

## D4 Project Facility Completion Form

### Civil Survey Information

Pre and post-demolition Global Positioning System (GPS) civil surveys were performed on the 105-ND Local Air Intake and the 105-ND Remote Air Intake, and the excavations for their removals. Copies of the GPS surveys are provided in Attachment 4.

### Anomalies Discovered During Demolition

No anomaly was discovered during the demolition of the 105-ND Local and Remote Air Intake structures.

### Final Building Status and Underlying Soil

Demolition and load out of the 105-ND Remote Air Intake was completed on April 5, 2012. Six containers of debris were shipped to the Environmental Restoration Disposal Facility (ERDF) for disposal. The 105-ND Local Air Intake was demolished in October 2009 with the 109-N/105-N structures down to the exterior walls of what later became the Interim Safe Storage Enclosure. The entrenched pipe that connected the two intakes remains in place with the exception of portions that were removed during 182-N demolition and remediation of waste site 100-N-61 by the Field Remediation (FR) organization. It is estimated that the original length of the entrenched pipe was 1,140 linear feet and that FR removed 600 linear feet. Post-demolition photographs are included in Attachment 2. A visual inspection and GPERS surveys were conducted of the excavated areas. No soil staining or radiological contamination was identified.

**Table 2. Contaminants of Concern for Facility Demolition**

<u>Contaminant of Concern</u>	<u>Management Practice/Determination of No Impact to the Soil</u>
Radionuclides	The 105-ND facility excavations were within the 100-N Area general Underground Radioactive Material Area (URMA). Additionally, one radiological survey record contains a picture of the 105-ND Remote Air Intake posted as a radiological contamination area, presumably as a result of mud dauber nests. GPERS surveys performed at the 105-ND facility excavations did not detect radiological contamination. The GPERS surveys are included in Attachment 3.

D4 Project Facility Completion Form

**Attachment 2: Photographs (4 pages)**

D4 Project Facility Completion Form

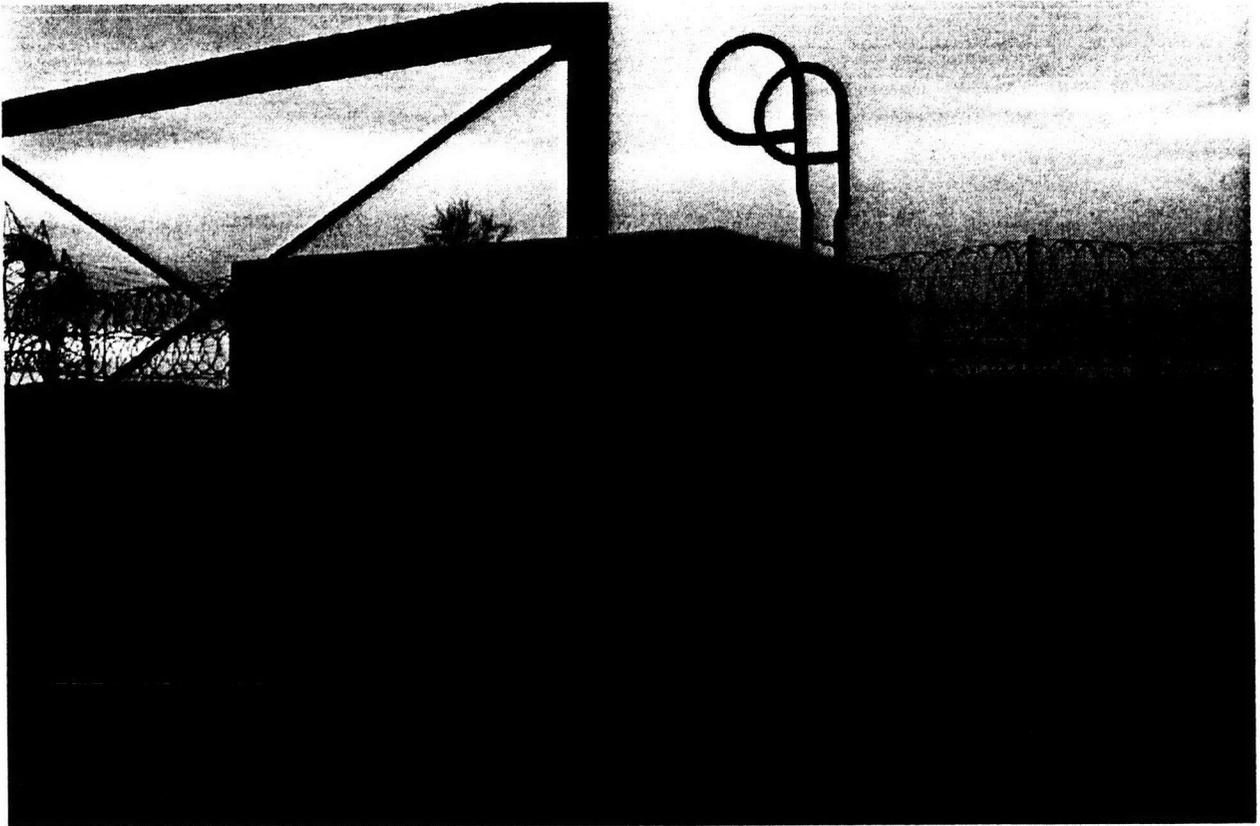


105-ND Remote Air Intake Pre-Demolition

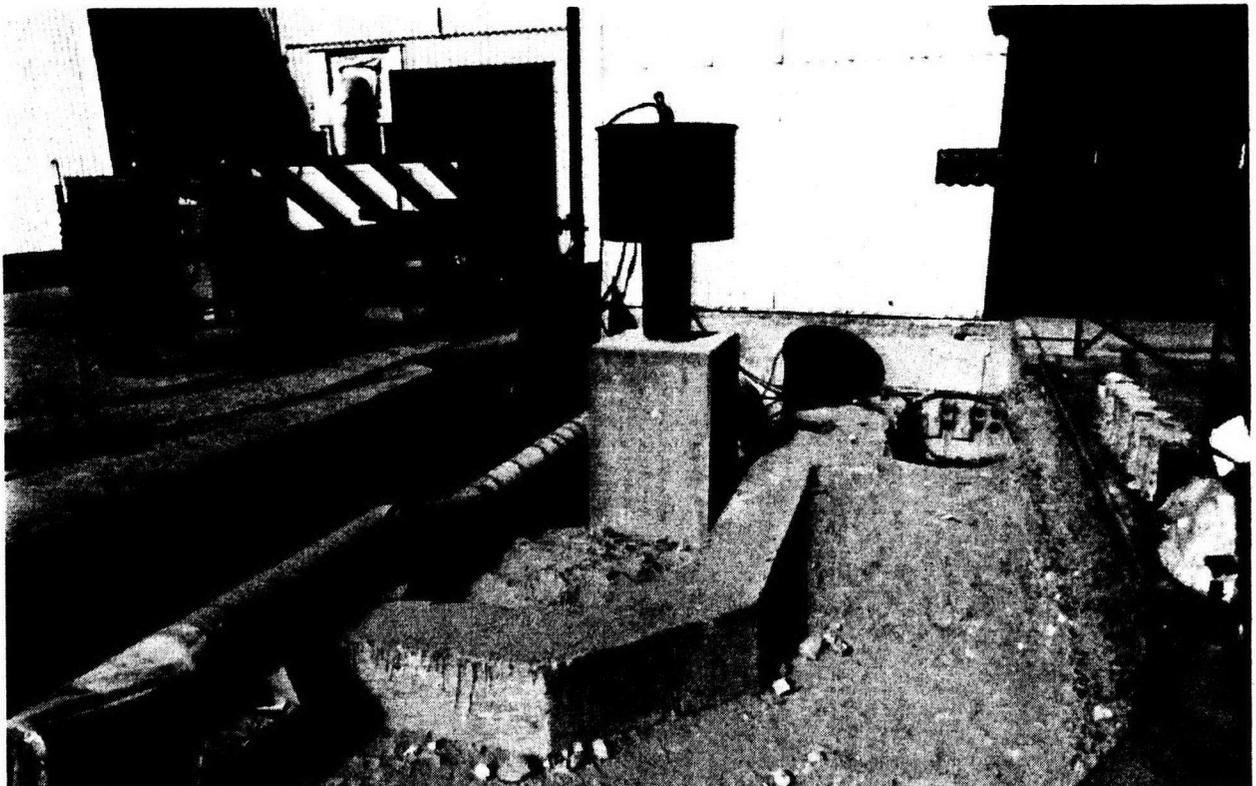


105-ND Local Air Intake Pre-Demolition

D4 Project Facility Completion Form



105-ND Remote Air Intake Pre-Demolition



105-ND Local Air Intake Pre-Demolition

105-ND Local Air Intake and Remote Air Intake Facility Completion

D4 Project Facility Completion Form



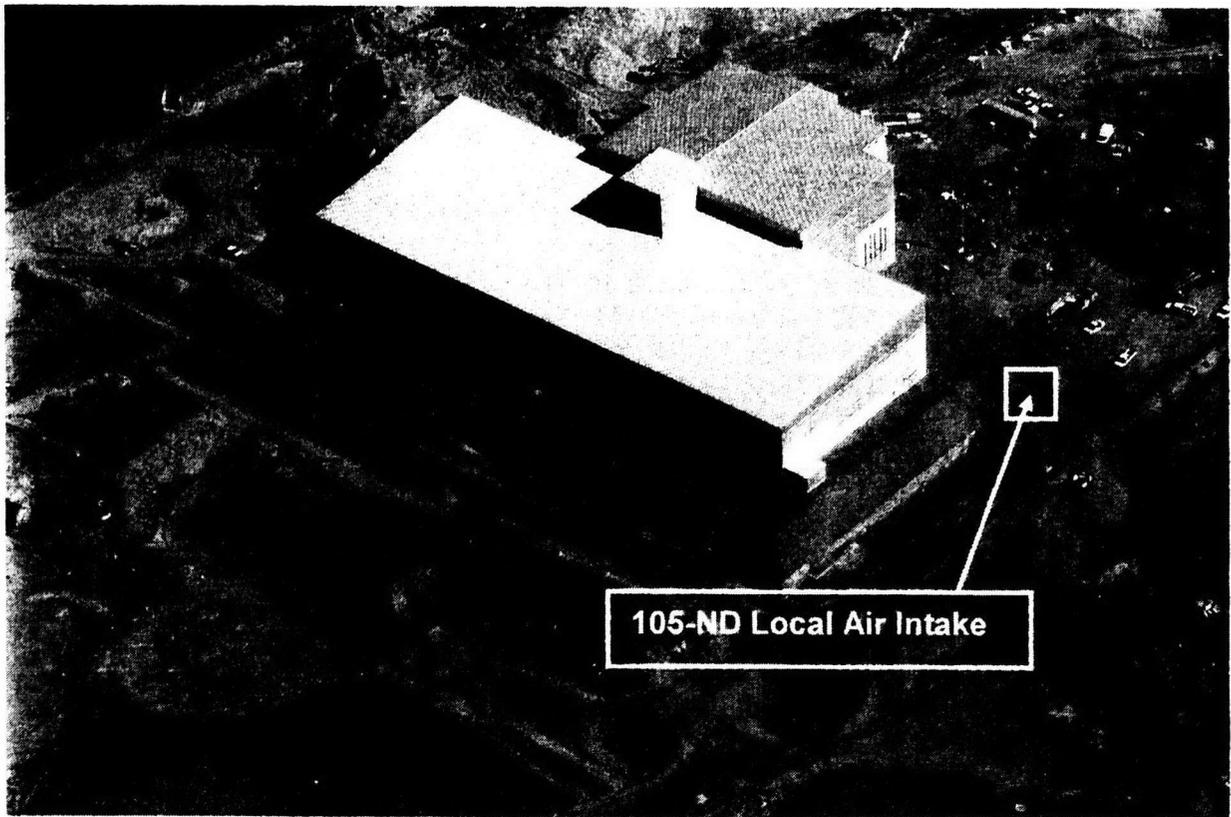
105-ND Remote Air Intake Post-Demolition



105-ND Remote Air Intake Post-Demolition (Looking West)

105-ND Local Air Intake and Remote Air Intake Facility Completion

D4 Project Facility Completion Form

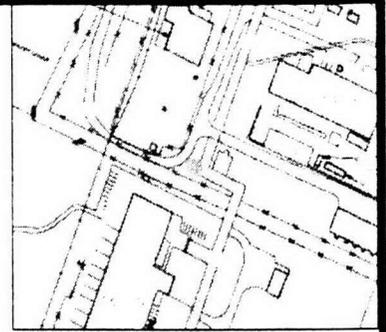


105-ND Local Air Intake Post-Demolition

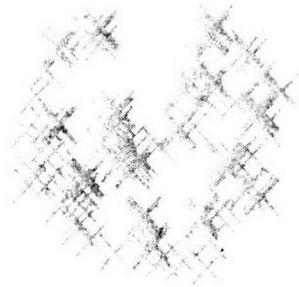
D4 Project Facility Completion Form

**Attachment 3: GPERS Surveys (4 pages)**

D4 Project Facility Completion Form



Site View



Copy

Bkg Location  
615 meters E →  
1627 cpm

Legend      Summary Statistics

NET CPM

- X <2440
- 2440 - 5000
- 5000 - 10000
- 10000 - 25000
- 25000

Coverage File: N109  
Number of Data Pnts: 244  
Type of Survey: gamma  
Max GCPM: 2012  
Avg Bkg CPM: 1627  
Survey Date: 4/18/2012  
Area Surveyed: 45 m<sup>2</sup>  
Project File: ESRFRM120053G  
Pdf File: ESRFRM120053GC

**100N D4  
105-ND Intake  
GPERS Radiological Survey  
Gamma Track Map**

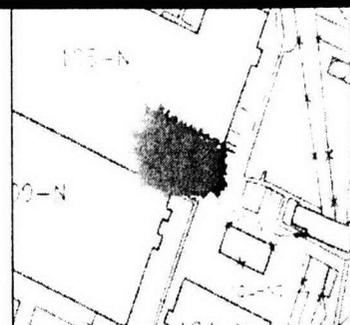
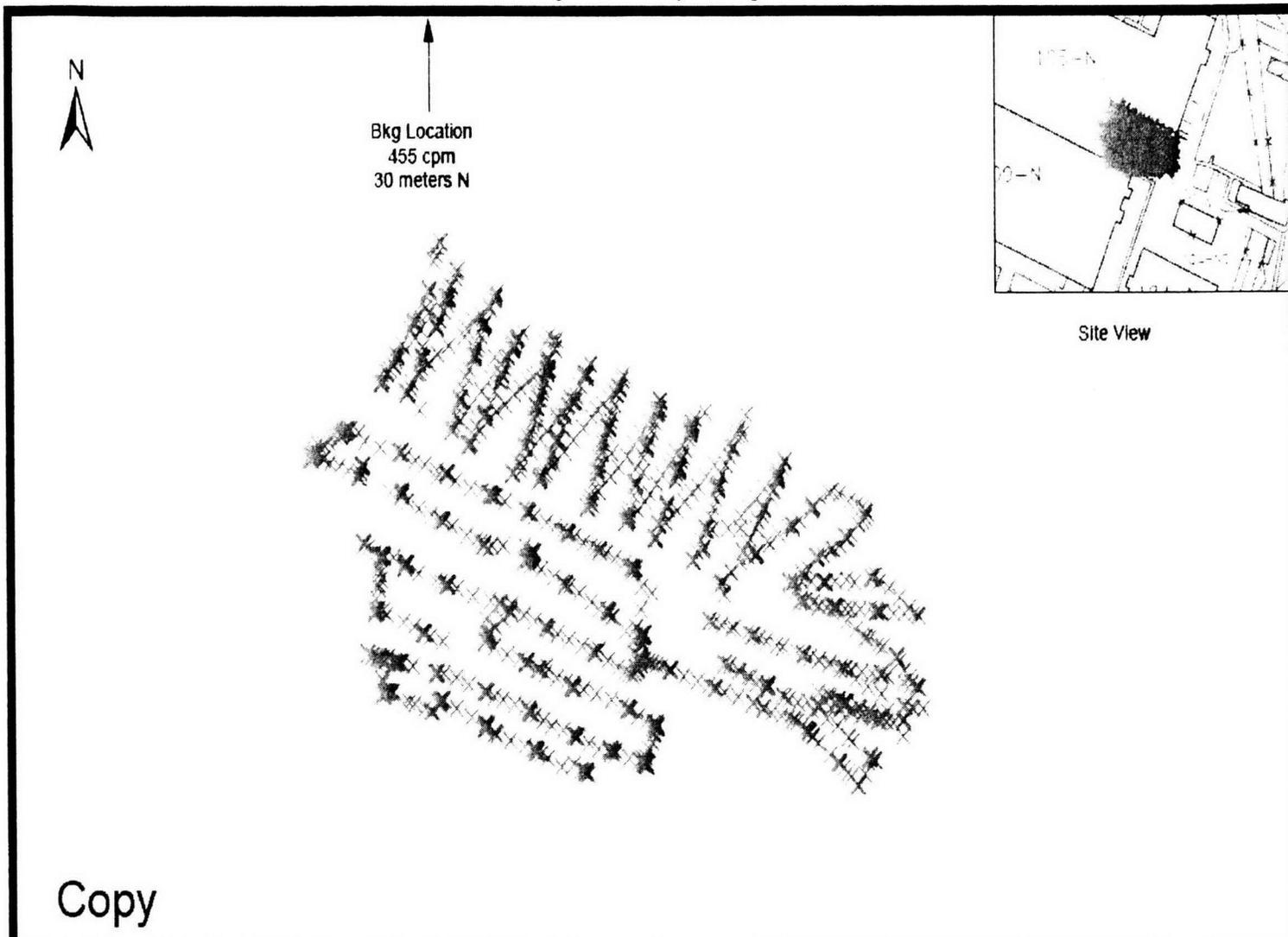
0 2 4 6 8 10  
Meters



Survey Map Prepared By Bruce Coomer, ESI

105-ND Local Air Intake and Remote Air Intake Facility

D4 Project Facility Completion Form



Site View

Copy

<b>Legend</b>	<b>Summary Statistics</b>
NET CPM	Coverage File: N322A
X < 910	Number of Data Pnts: 2139
● 910 - 5000	Type of Survey: 'Beta'
● 5000 - 10000	Max GCPM: 1133
● 10000 - 25000	Avg Bkg CPM: 455
● > 25000	Survey Date: 11/18/2009
	Area Surveyed: 134 m <sup>2</sup>
	Project File: N322A
	Pdf File: ESRFRM090173BC

**100N Field Remediation  
105-N Control Room  
GPERS Radiological Survey  
Beta Track Map**

0 5 10 15  
Meters

**HANFORD**  
**EBERLINE SERVICES**  
HANFORD, INC.

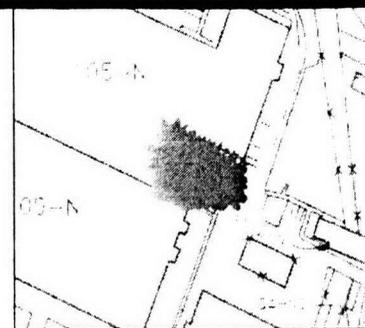
Survey Map Prepared By Bruce Coomer, ESI

105-ND Local Air Intake and Remote Air Intake Faci

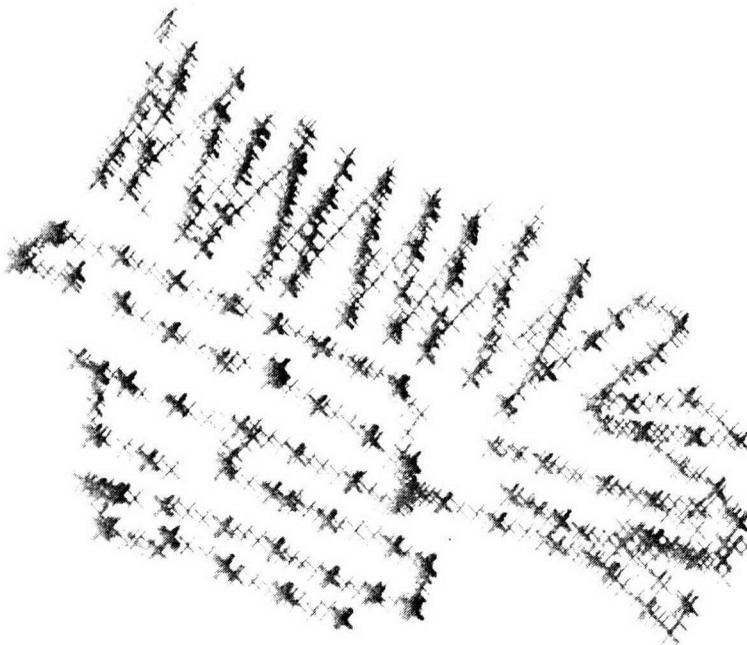
D4 Project Facility Completion Form



Bkg Location  
1236 cpm  
35 meters N



Site View



Copy

Legend

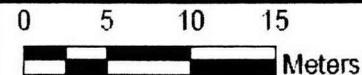
NET CPM

- × < 2472
- 2472 - 5000
- 5000 - 10000
- 10000 - 25000
- > 25000

Summary Statistics

Coverage File: N322A  
Number of Data Pnts: 2139  
Type of Survey: 'Gamma'  
Max GCPM: 2289  
Avg Bkg CPM: 1236  
Survey Date: 11/18/2009  
Area Surveyed: 134 m<sup>2</sup>  
Project File: N322A  
Pdf File: ESRFRM090173GC

**100N Field Remediation  
105-N Control Room  
GPERS Radiological Survey  
Gamma Track Map**



Survey Map Prepared By Bruce Coomer, ESI

105-ND Local Air Intake and Remote Air Intake Facility

D4 Project Facility Completion Form

**Attachment 4: GPS Civil Survey Information (8 pages)**

D4 Project Facility Completion Form

**GPS Survey Report for 105ND Air Intake Pre- Demolition**

*Project : 105n*

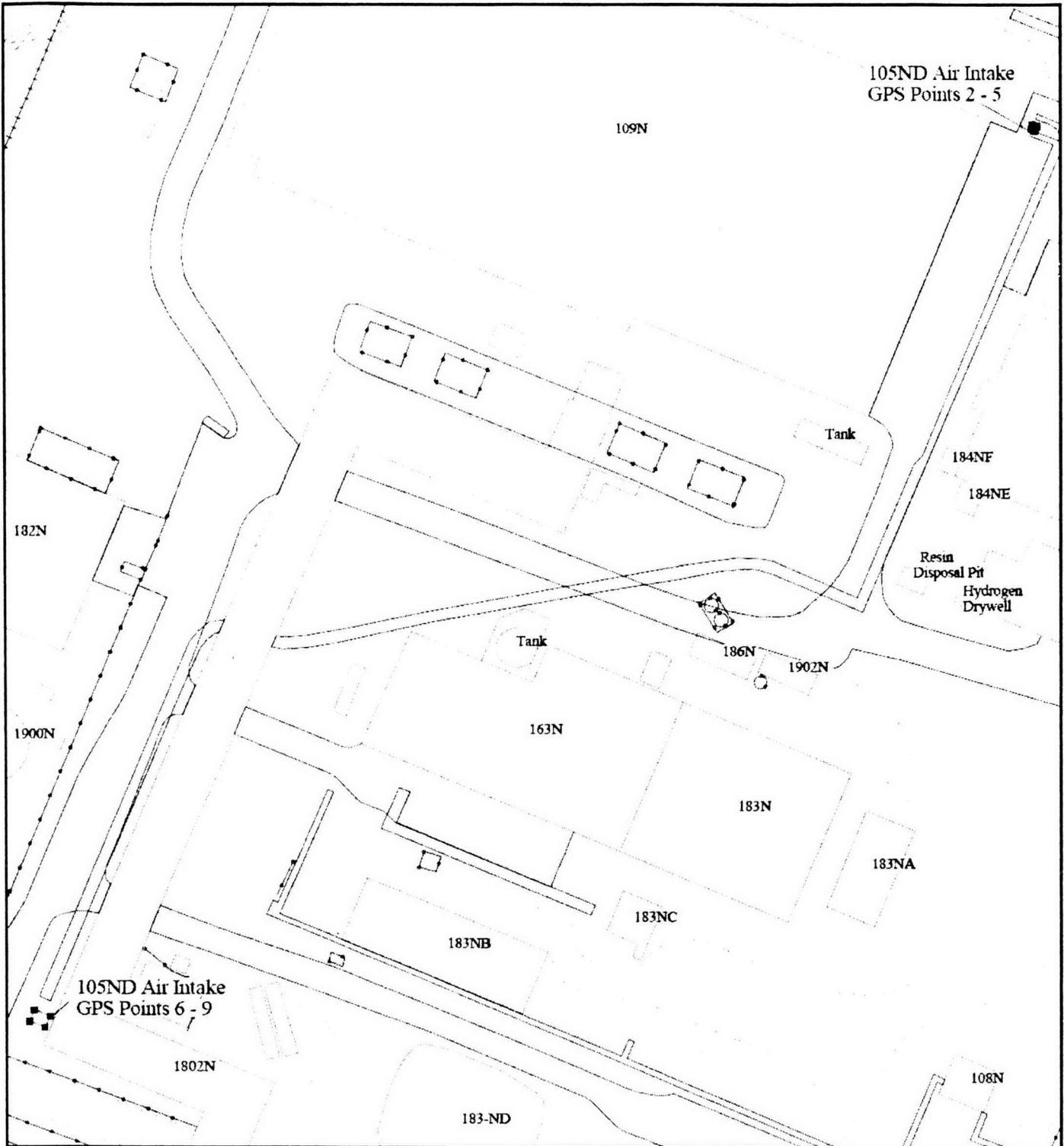
<b>User name</b>	maaye	<b>Date &amp; Time</b>	4:17:40 PM 1/31/2008
<b>Coordinate System</b>	US State Plane 1983	<b>Zone</b>	Washington South 4602
<b>Project Datum</b>	NAD 1983 (Conus)		
<b>Vertical Datum</b>	NAD83	<b>Geoid Model</b>	GEOID99 (Conus)
<b>Coordinate Units</b>	Meters		
<b>Distance Units</b>	Meters		
<b>Height Units</b>	Meters		

Survey Project Name/Title: 105ND Air Intakes  
 Survey Purpose: Locate corners of the 105N Air Filters  
 Requested By: Amy Hood  
 General Site Location: 100N  
 Charge Code: R105N01000  
 Field Surveyor: Margo Aye  
 Computer Software Used: Trimble Survey Controller, and Geomatics Office V.11  
 Survey Equipment Used: 5800  
 Control Monuments Used: N-2  
 Survey Method: RTK  
 Estimated Horizontal Precision: .020m  
 Estimated Vertical Precision: .050m  
 Fieldwork Start Date: 012408  
 Completion Date: 012408  
 Notes:

Name	Northing	Easting	Elevation	Feature Code	Description	Time/Date
2	149460.078m	571266.850m	139.618m	corner		12:35:52 24 Jan 2008
3	149460.468m	571266.019m	139.593m	corner		12:36:03 24 Jan 2008
4	149459.228m	571266.454m	139.573m	corner		12:36:25 24 Jan 2008
5	149459.605m	571265.621m	139.568m	corner		12:36:43 24 Jan 2008
6	149285.689m	571072.438m	139.166m	corner		
7	149287.924m	571073.344m	139.075m	corner		
8	149286.657m	571076.347m	139.165m	corner		
9	149284.440m	571075.416m	139.129m	corner		

[Back to top](#)

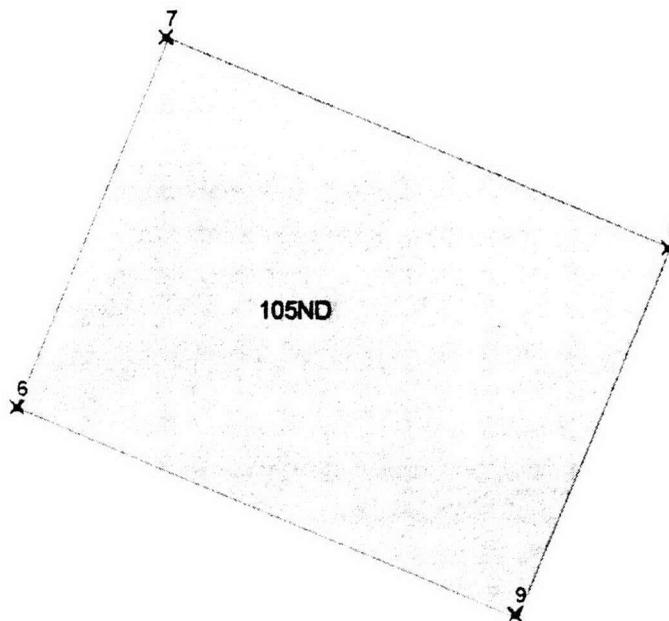
# D4 Project Facility Completion Form



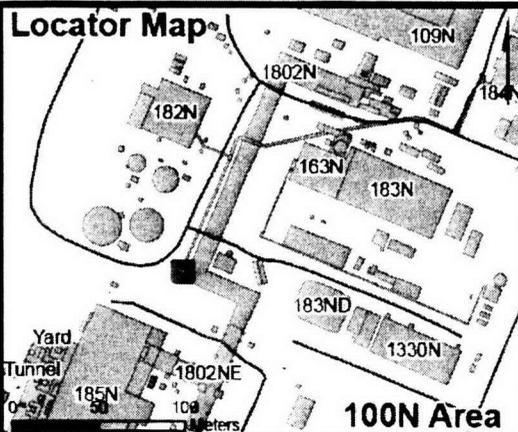
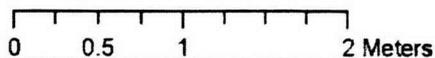
	Paved Roads and Sidewalks		Location of the 105ND Air Intake
	Unpaved Roads and Trails		GPS Locations for 105ND
	Railroad	See GPS Survey Report for Coordinate Information	
	Fences		

**Pre- Demolition Survey of  
The 105ND Air Intake**

D4 Project Facility Completion Form



GPS Survey Date 1/24/08  
 US State Plane 1983  
 Zone: Washington South 4602;  
 NAD83, NAVD88; Units are in Meters



### GPS Pre Demo Survey Report For 105ND Building

x GPS Survey Points     Building Location

Name	Feat_Code	Northing	Easting	Elevation
6	corner	149285.689	571072.438	139.166
7	corner	149287.924	571073.344	139.075
8	corner	149286.657	571076.347	139.165
9	corner	149284.44	571075.416	139.129

WCH:04/09/12:V:\naayev\rdmap\100N\predemo-105ND.mxd, 3:11:24 PM

0579171

# GPS Survey Data Report for 105ND and 105N Lift Station Pre Demolition

**Project : Job 947**

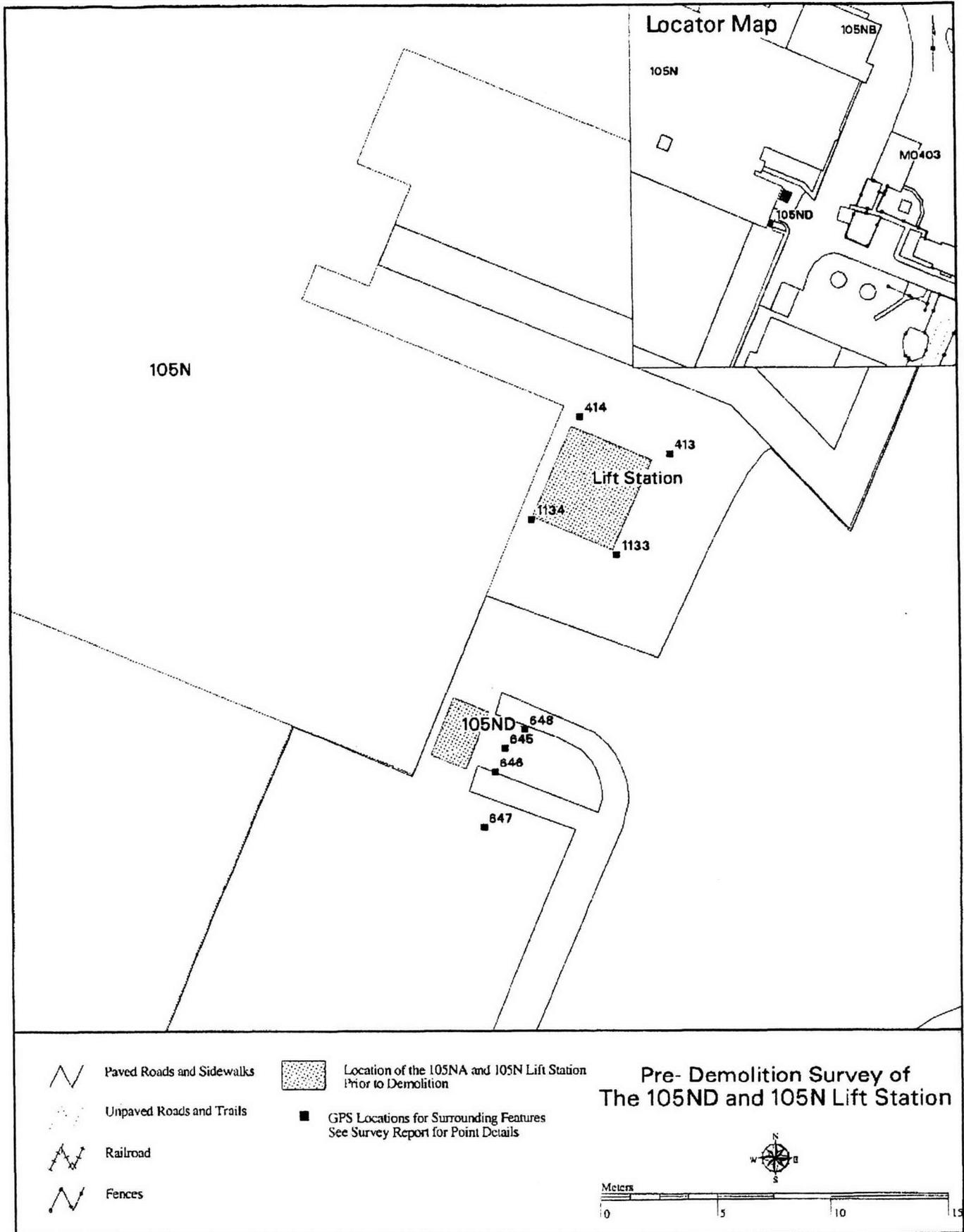
<b>User name</b>	maaye	<b>Date &amp; Time</b>	5:07:55 PM 12/6/2006
<b>Coordinate System</b>	US State Plane 1983	<b>Zone</b>	Washington South 4602
<b>Project Datum</b>	NAD 1983 (Conus)		
<b>Vertical Datum</b>	NAD83	<b>Geoid Model</b>	GEOID99 (Conus)
<b>Coordinate Units</b>	Meters		
<b>Distance Units</b>	Meters		
<b>Height Units</b>	Meters		

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Survey Project Name/Title:	105ND and 105N Lift Station		
Survey Purpose:	GPS the area corners and surrounding features for the 105N locations		
Requested By:	Amy Hood		
General Site Location:	100-N		
Charge Code:			
Field Surveyor:	Margo Aye		
Computer Software Used:	Trimble Survey Controller, and Geomatics Office V.11		
Survey Equipment Used:	5800		
Control Monuments Used:	100N-4		
Survey Method:	RTK		
Estimated Horizontal Precision:	.02m		
Estimated Vertical Precision:	.05m		
Fieldwork Start Date	3/22/06		
Completion Date:	3/22/06		
Notes:	<i>Logbook # EL1571</i>		

Name	Northing	Easting	Elevation	Feature Code	Description
414	149474.464m	571270.387m	139.595m	corner of lift station	
413	149472.821m	571274.189m	139.616m	corner of lift station	
1133	149468.438m	571271.845m	139.616m	corner of lift station	
1134	149469.977m	571268.279m	139.616m	corner of lift station	
648	149460.903m	571267.878m	139.675m	lift	
645	149460.094m	571266.982m	139.702m	lift	
646	149459.048m	571266.532m	139.628m	lift	
647	149456.622m	571266.041m	139.683m	lift	

# D4 Project Facility Completion Form



D4 Project Facility Completion Form

0633542

**GPS Post Demo Survey for 105ND**

Project : 100N-041912

Job 1209

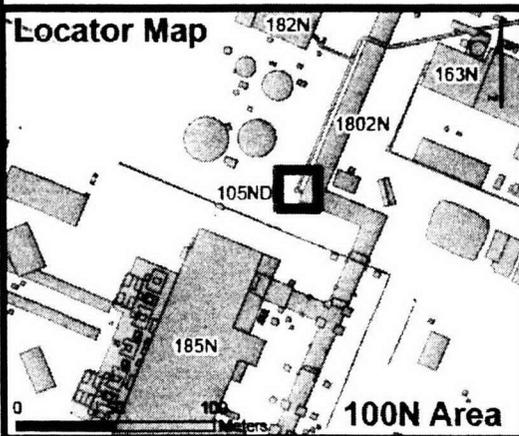
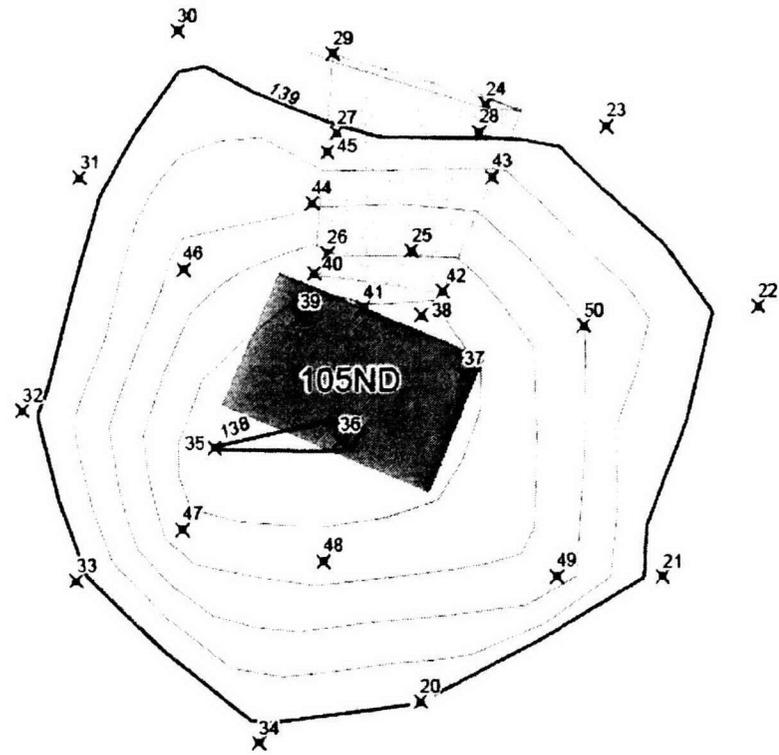
User name	maaye	Date & Time	2:55:16 PM 4/23/2012
Coordinate System	US State Plane 1983	Zone	Washington South 4602
Project Datum	(WGS 84)		
Vertical Datum	NAVD88	Geoid Model	Not selected
Coordinate Units	Meters		
Distance Units	Meters		
Height Units	Meters		

Survey Project Name: 105ND Post Demo  
 Date: 4/19/2012  
 Equipment: 5800  
 Survey Purpose: Post Demo Survey for 105ND Excavation  
 Requested By: Clay McCurley  
 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: 4/19/12  
 Fieldwork Completion Date: 4/19/12  
 Notes: This excavation had a large concrete footing with in it.

Name	Northing	Easting	Elevation	Feature Code	Description:
20	149281.456m	571075.486m	138.994m	105nd-top	
21	149283.326m	571079.102m	139.106m	top	
22	149287.345m	571080.540m	139.143m	top	
23	149290.020m	571078.294m	139.174m	top	
24	149290.334m	571076.501m	139.210m	top	
25	149288.157m	571075.387m	139.112m	conc-block-top	
26	149288.137m	571074.162m	139.061m	conc-block-top	
27	149289.914m	571074.309m	139.151m	conc-block-top	
28	149289.929m	571076.399m	139.143m	conc-block-top	
29	149291.103m	571074.255m	139.226m	top	
30	149291.435m	571071.960m	139.097m	top	
31	149289.251m	571070.509m	139.116m	top	
32	149285.790m	571069.656m	139.087m	top	
33	149283.254m	571070.426m	139.079m	top	
34	149280.840m	571073.101m	139.089m	top	
35	149285.236m	571072.476m	137.998m	toe	
36	149285.359m	571074.333m	137.972m	toe	
37	149286.335m	571076.164m	138.140m	toe	
38	149287.207m	571075.528m	138.105m	toe	
39	149287.176m	571073.742m	138.136m	toe	
40	149287.830m	571073.953m	138.244m	conc-block-toe	
41	149287.322m	571074.683m	138.184m	conc-block-toe	
42	149287.565m	571075.842m	138.253m	conc-block-toe	
43	149289.264m	571076.587m	138.747m	conc-block-toe	
44	149288.872m	571073.935m	138.615m	conc-block-toe	
45	149289.644m	571074.163m	138.902m	conc-block-toe	
46	149287.887m	571072.025m	138.526m	side	
47	149284.018m	571071.992m	138.270m	side	
48	149283.551m	571074.076m	138.295m	side	
49	149283.337m	571077.519m	138.484m	side	
50	149287.050m	571077.948m	138.591m	side	

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D4 Project Facility Completion Form

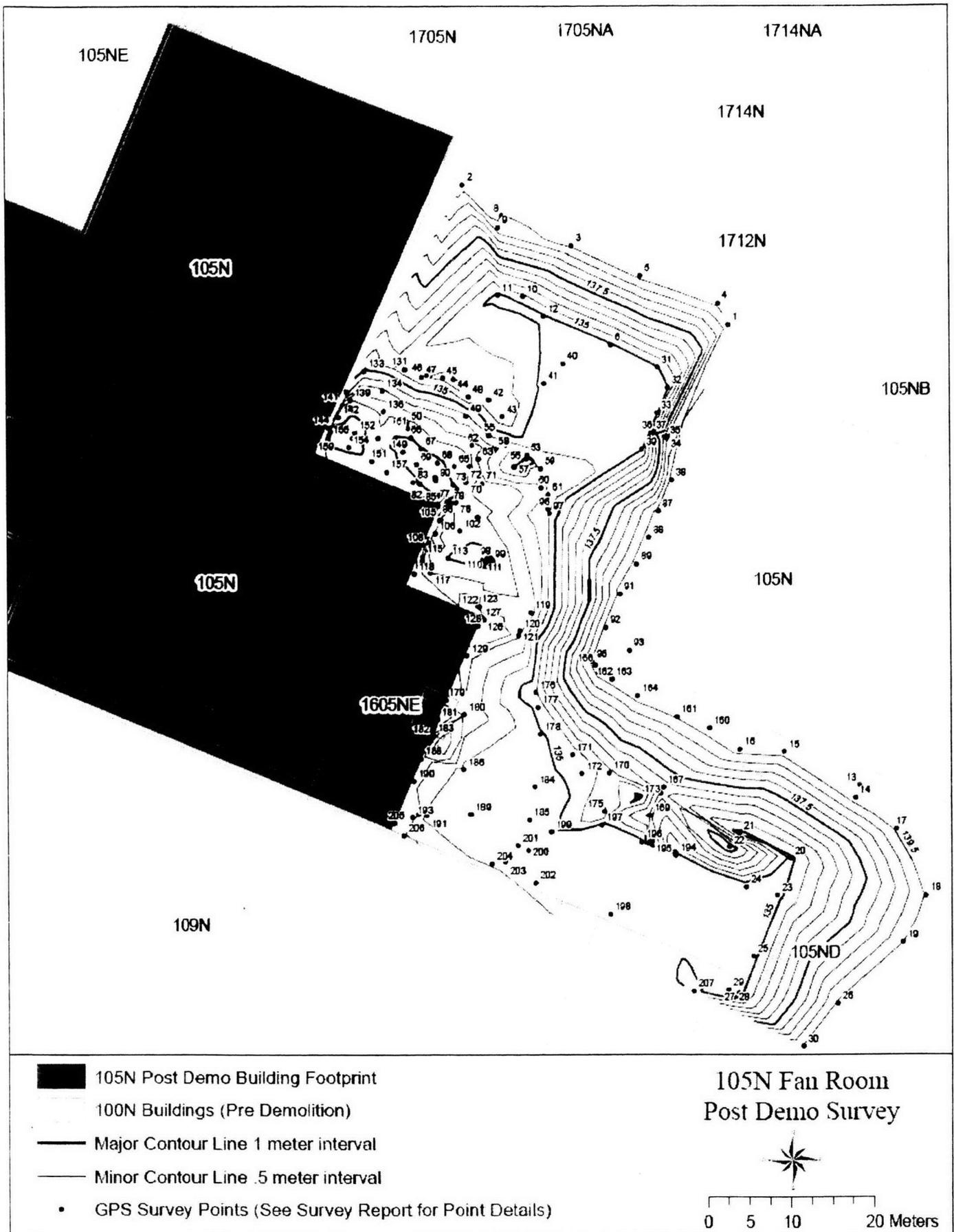


### GPS Post Demo Survey Report For 105ND

- GPS Post Demolition Survey Points:
- x See Survey Report for Point Details
  - Major Contour 1 Meter Interval
  - - - Minor Contour .2 Meter Interval
  - Building Location
  - ▨ Concrete Structure

WCH:04/23/12 V:\msaye\ArcMap\100Npostdemo-105ND.mxd, 1:13:30 PM

# D4 Project Facility Completion Form



D4 Project Facility Completion Form

**Attachment 5: Sampling Determination Form for the 105-ND Facility (SDF-100N-023)  
(4 Pages)**

D4 Project Facility Completion Form

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

Determination Number  
SDF-100N-023

**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: Remote Air Intake and Local Air Intake Building Number: 105-ND

WIDS Sites Associated or Adjacent:

Associated:

- 100-N-66 & 100-N-84:1 (both Accepted)

Adjacent:

Due to the proximity of the 105-ND facility to the 105-N reactor and 1802-N Pipe Trestle, it is adjacent to many WIDS sites.

WIDS Sites posing "Environmental Restoration Concerns," as identified in CCN 126293:

- 100-N-28, 120-N-3, and 124-N-2 (all Accepted)
- 100-N-9 & 120-N-8 (both Rejected)
- UPR-100-N-41 (Not Accepted)

Other:

The 105-ND facility consisted of two aboveground structures and a connecting underground concrete trench (CCN 126293 pgs. 1-2). One of the above-ground structures was the Remote Air Intake, located south of 109-N, by the 1802-N Pipe Trestle; the other was the Local Air Intake, located east of, and adjacent to the 105-N. For purposes of this form, 105-ND is considered to be only the above-ground structures. The portion of the structure adjacent the 105-N Reactor Building was demolished in October of 2009 by the Subcontractor performing demolition of the 109-N/105-N structures down to what were later to become the exterior walls of the Safer Storage Enclosure (SSE). The remainder of the 105-ND south of 182-N was demolished in April of 2012.

**C: INFORMATION SOURCES**

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

Historical Site Assessment: <u>Historical Site Assessment for 105-ND Remote Air Intake: CCN 126293</u>	Site Walkdown: <u>Visual Inspection of the 105-ND Excavation Soils: CCN 165474</u>
IH Characterization Report: <u>N/A</u>	Radiological Survey: <u>Global Positioning Environmental Radiological Surveyor (GPERS): • ESR-FRM-12-0053BC • ESR-FRM-12-0053GC • ESR-FRM-08-0072C</u>
IHC/FHC Document: <u>N/A</u>	WIDS/SIS: <u>RCC Stewardship Information System (SIS) Facility Summary Report: 105-ND &amp; 1802-N</u>
PDSR: <u>N/A</u>	Facility Inspection: <u>N/A</u>
Waste Characterization Checklist: <u>N/A</u>	Summary Report: <u>N/A</u>

Other:

- 100N Facility Endpoint Criteria and Turnover Documentation 105-ND Remote Air Intake (background information only): CCN 521107
- Radiological Survey Record: RSR-100N-08-1047 / 1197 / 1387 / 1515 / 1879
- Radiological Survey Record: RSR-100N-10-1286
- Radiological Survey Record: RSR-100N-11-0557
- Photographs of the 105-ND Facility Pre-Demolition, Time-Stamped: SIS Facility Summary Report for 105-ND pg. 4 (1/5/2006), CCN 126293 pg. 6 (1/5/2006)
- Photographs of the 105-ND Facility Pre-Demolition, No Time Stamp: SIS Facility Summary Report for 105-ND pgs. 3, 5, 6, 7, and 8; SIS Facility Summary Report for 1802-N pg. 8
- Photographs of the 105-ND Facility Post-Demolition, No Time Stamp: CCN 165474 pg. 2

D4 Project Facility Completion Form

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

Determination Number  
SDF-100N-023

**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: \_\_\_\_\_

**References/Comments:**

The Historical Site Assessment for the 105-ND facility states that no indication, pathway, or source of asbestos, lead, mercury, PCBs, or refrigerants was discovered during review of process knowledge and facility documentation (CCN 126293 pg. 2). However, the document does identify the nearby 1802-N Pipe Trestle as a potential source of radiological contamination (CCN 126293 pg. 2). As detailed below, radiological contamination was not identified at the 105-ND facility. Accordingly, no hazardous substance has been associated with this facility.

Liquids:  Yes     No

If yes, describe source and nature of liquids:

The 105-ND facility was used to intake and transfer air to the 105-N and 182-N facilities (CCN 126293 pg. 1 & SIS Facility Summary Report for 105-ND pg. 1). No liquids were involved in its operation.

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

As verified by what documentation:

This question is not applicable because the facility did not contain hazardous substances. The facility consisted only of two aboveground air intake structures.

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

**References/Comments:**

The 105-ND facility was described as having the potential to be contaminated by site operations and/or processes (CCN 126293 pg. 1). However, this determination was attributed to the fact that the condensate drip legs from the 1802-N Steam Pipe Trestle could have radiologically contaminated the surfaces of the southernmost portion of the 105-ND structure. Pre- or post-demolition radiological surveys of the structure never identified contamination. Accordingly, there was no potential for a release to the environment during D4 activities.

List any hazardous materials left in the building for demolition:

This question is not applicable because the facility did not contain hazardous substances. The facility consisted only of two aboveground air intake structures.

Does review of historical records and process knowledge indicate a potential for radiological or chemical contamination to be present in the facility?

There is no indication that a pathway for contamination of the 105-ND facility existed. As detailed below, radiological surveys did not support the conclusion that the facility, or its footprint, had become contaminated:

**Radiological Contamination:** No radiological contamination was identified in any reviewed survey record.

- GPERs Surveys: ESR-FRM-12-0053BC, ESR-FRM-12-0053GC, and ESR-FRM-08-0072C
- Routine Radiological Surveys: RSR-100N-08-1047, RSR-100N-08-1197, RSR-100N-08-1387, RSR-100N-08-1515, RSR-100N-08-1879, RSR-100N-10-1286, RSR-100N-11-0557.

**Chemical Contamination:** No hazardous substance has been associated with the 105-ND facility (CCN 126293 pg. 2). No stained soil or anomaly was discovered during a post-demolition visual inspection of the 105-ND footprint (CCN 165474 pg. 1). There does not appear to have been any leak or spill at the facility during its operation (CCN 126293 pg. 1).

**Comments:**

Pertinent design drawings include H-1-49306, Sheets 2, 3, and 4; and H-1-45007, Sheets 1, 9, 22, and 29.

D4 Project Facility Completion Form

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

Determination Number  
SDF-100N-023

**E. FIELD OBSERVATIONS**

**Visual Inspection**

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

References/Comments:  
No stained soil or anomaly was discovered during a post-demolition visual inspection of the 105-ND footprint (CCN 165474 pg. 1).

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

References/Comments:  
This question is not applicable because no stained soil or anomaly was discovered at the facility.

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

References/Comments:  
This question is not applicable because no stained soil or anomaly was discovered at the facility.

Is the area potentially a discovery site?  Yes  No

References/Comments:  
There is no reason to consider the 105-ND footprint as a potential discovery site.

**Radiological Surveys**

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

References/Comments:  
• GPERS Surveys: ESR-FRM-12-0053BC, ESR-FRM-12-0053GC, and ESR-FRM-08-0072C  
• Routine Radiological Surveys: RSR-100N-08-1047, RSR-100N-08-1197, RSR-100N-08-1387, RSR-100N-08-1515, RSR-100N-08-1879, RSR-100N-10-1286, RSR-100N-11-0557.

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

References/Comments:  
This question is not applicable because radiologically contaminated soil was not found.

Is the area potentially a discovery site?  Yes  No

References/Comments:  
No radiologically contaminated soil was found.

Were the contaminated materials removed?  Yes  No  N/A

References/Comments:  
This question is not applicable because radiologically contaminated soil was not found.

**F. WIDS SITES**

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

If yes, list the WIDS sites:  
No indication of an effect to a WIDS site was found.

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

References/Comments:  
This question is not applicable because no indication of an effect to a WIDS site was found.

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

References/Comments:  
Deferral is not necessary for closeout of the 105-ND facility.

**G. COPCs FOR SOILS AND STRUCTURES REMAINING AFTER DEMOLITION**

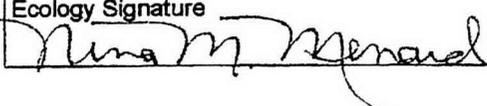
What are the potential contaminants of concern for the remaining below-grade soil?

D4 Project Facility Completion Form

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<b>100-N ANCILLARY FACILITIES REMOVAL ACTION SAMPLING DETERMINATION FORM</b>		Determination Number SDF-100N-023
<input checked="" type="checkbox"/> None <input type="checkbox"/> SVOC <input type="checkbox"/> VOC <input type="checkbox"/> Metals <input type="checkbox"/> TPH <input type="checkbox"/> Rad <input type="checkbox"/> PCBs		
<input type="checkbox"/> Other (Specify): _____		
Comments: The 105-ND facility did not contain hazardous substances. Furthermore, and as detailed above, no radiologically contaminated soil was found at the facility.		
Summary of in-process soil sampling requirements: N/A		
Constituents detected / concentrations / rationale N/A		
Sample Collection Summary N/A		
<b>H. NOTES / ADDITIONAL INFORMATION</b>		
<input type="checkbox"/> Check here if additional information / data / maps / sketches are attached to this form. If checked, list the attachment(s):		
<b>I. SAMPLING</b>		
Are soil samples required to demonstrate that remaining structure or below-grade soils meet cleanup standards? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.

<b>ACKNOWLEDGEMENT</b>		
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 5/30/12
<b>AGREEMENT</b>		
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 Robert Guerant	Date 5/24/12
Ecology Signature 	Printed Name Nina M. Menard	Date 6/4/12