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NAS BRUNSWICK  
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FINAL RESOURCE CONSERVATION AND RECOVERY ACT PARTIAL CLOSURE REPORT  
FOR BUILDING 296 WITH TRANSMITTAL LETTER NAS BRUNSWICK ME  
12/1/2010  
NAS BRUNSWICK

**ENVIRONMENTAL DEPARTMENT  
NAVAL AIR STATION  
437 HUEY DRIVE  
BRUNSWICK, ME 04011**

December 1, 2010

Mr. Edward Vigneault  
Maine Department of Environmental Protection  
Division of Oil and Hazardous Waste Facilities Registration  
17 State House Station  
Augusta, ME 04333-0017

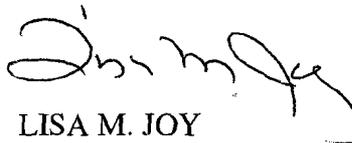
Subj: Final RCRA Partial Closure Report for Building 296

Dear Mr. Vigneault:

A copy of the Final RCRA Partial Closure Report for Building 296 at Naval Air Station Brunswick is provided as Enclosure (1).

If you have any questions, please contact Mr. Mike Fagan at 921-1717 or via e-mail at [michael.fagan1@navy.mil](mailto:michael.fagan1@navy.mil).

Sincerely,



LISA M. JOY  
Environmental Director

Enclosure: (1) Final RCRA Partial Closure Report for Building 296

Copy to:  
NAVFAC Mid-Atlantic (B. Abraham)  
NAS Brunswick (M. Fagan/D. Smith)  
EPA Region I (M. Daly)  
MRRR (V. Boundy)  
Curtis Memorial Library (L. Oliver)  
Lepage Environmental (C. Lepage)  
BRAC PMO NE (P. Burgio)

**RCRA PARTIAL CLOSURE REPORT**  
for  
**BUILDING 296 – OLD TACAN TRANSMITTER BUILDING**  
**NAVAL AIR STATION BRUNSWICK, MAINE**  
**USEPA IDENTIFICATION NUMBER ME8170022018**  
**NOVEMBER 2010**

## 1. INTRODUCTION

The purpose of this report is to present the findings and conclusions of the investigation conducted to determine if the Maine Department of Environmental Protection (MEDEP) RCRA or hazardous waste closure requirements have been completed for Building 296 at Naval Air Station Brunswick (NAS Brunswick).

## 2. PROPERTY DESCRIPTION

The area of Building 296, Old Tactical Air Navigation (TACAN) Transmitter Building, is located in the northwestern portion of NAS Brunswick, approximately 1,000 feet from the northwest corner of the existing runway (Figure 1). It is accessed via Cutoff Road, which runs east from Perimeter Road

According to NAS records, Building 296 was constructed in 1956 and demolished in 2005. The former building was 408 square feet in area, built on a concrete slab, and was used as a TACAN system for its entire history. The building housed electronics equipment for the top-mounted navigation antenna above. The Building 296 area also includes a pad-mounted transformer, a small generator building on a concrete pad, a Visual Approach Slope Indicator (VASI) Controller on a concrete pad, and a diesel above-ground storage tank (AST). A switch transformer, also associated with former Building 296, was located southeast of the former building. Power was provided to the building by underground power lines. Photographs of the Building 296 area are provided as an attachment to this report.

Building 296 is located within the Former Residential Area. The RCRA Partial Closure Report for the Former Residential Area addresses the land surrounding and the groundwater underlying the Building 296 area.

## 3. PROPERTY HISTORY AND RECORDS RESEARCH

The Tetra Tech NUS, Inc. (Tetra Tech) project team interviewed NAS Brunswick Environmental Department personnel and reviewed both NAS Brunswick and the Augusta, Maine MEDEP files to collect available information concerning Building 296, including past use and operations at that location.

Records reviewed include historical aerial photographs, the NAS Brunswick Other Environmental Liabilities (OEL) Database, area-specific reports, facility plans and drawings, and hazardous waste records. Aerial photographs dated 1953, 1958, 1978, 1981, 1984, 1989, 1993 and 1997 (Sewall, 1953, 1958, 1978, 1981, 1984, 1989, 1993 and 1997) were reviewed. Public Works Department (PWD) site base maps dated 1943, 1946, 1952, 1956, 1975, 1977, 1989, 1991, and 2006 (PWD, 1943, 1946, 1952, 1956, 1975, 1977, 1989, 1991, and 2006) and site building lists for 1965, 1976, 2003, 2006, and 2008 (PWD, 1965, 1976, 2003, 2006, and 2008) were also reviewed.

The 1965 buildings index is the first to include Building 296, and indicates it to be a 408-square-foot structure constructed in 1956. This construction date is consistent with site plans and aerial photographs. Historical site plans dated 1956 and earlier do not show the building. Beginning with the 1957 site plan, Building 296 is shown as "Vortex Tower 296." The 1958 aerial photograph is the earliest to show Building 296, and shows it in its current location. The area is vacant on the only earlier aerial photograph, dated 1953.

A 1977 historical plan entitled "VORTAC Alterations – Building 296" included planned alterations to Building 296, including: removal of the generator, fuel lines, batteries (shown as a battery rack), and associated wiring from the building interior; removal of the dividing wall between the generator room and equipment room; installation of an emergency generator on the northeast side of the building; removal of an existing 500-gallon, gasoline, underground storage tank (UST) (installation of a new diesel fuel tank

would be accomplished by others adjacent to the new generator); removal of an existing 37.5-kVa transformer; and installation of a new 75-kVa electrical transformer in the same approximate location (PWD, 1977). Other changes included installation of asbestos-tile flooring inside the building, and other electrical conduit modifications outside of the building.

A 1991 plan entitled “VORTAC Extension – Building 296” and labeled “As Built” shows that alterations were made (likely sometime between 1984 and 1989, based on historical aerial photographs) (PWD, 1991). In the 1984 aerial photograph, it appears that construction is ongoing at Building 296. The circular antenna visible on earlier photographs is not observed, but is visible again in later aerial photographs. No other information concerning this structure was identified in historical records.

According to historical records and NAS Brunswick Environmental Department personnel, following its construction in 1956, Building 296 was used as a loading TACAN Transmitter Building. There is no record of hazardous waste generation at Building 296 (Environmental Department, 2010).

According to MEDEP and NAS Brunswick spill records, no spills were reported in the vicinity of the Building 296 (Environmental Department, 1988; Environmental Department 1999; and MEDEP, 2010).

The NAS Brunswick Transformer Database lists two electrical transformers associated with Building 296. One non-PCB-containing, pad-mounted transformer is located on the northeast side of the slab for former Building 296. A three-way oil switch transformer was also located to the southeast of Building 296 (PWD, 2009). The following is a detailed listing of the electrical transformers associated with former Building 296:

Transformer	Manufacturer	Serial Number	Removal Date	PCB Concentration (parts per million)
75-kVa non-PCB	SB	CM2575533	Not Applicable - Active	Non-PCB: dry
Non-PCB 3-Way Oil Switch	Kyle (Cooper)	2Q9314281	Not Applicable - Active	Non-PCB: <1

< less than

No other transformers are listed in the transformer database associated with Building 296. However, due to the age of the building (1956), it is possible that PCB-containing transformers were used at Building 296. Soil samples were collected around both transformer pads to assess potential PCB impacts to soil relating to historical transformers (results discussed in Section 4).

The NAS Brunswick Master/Historical Aboveground and Underground Storage Tank Inventory lists one UST (296.0), a 550-gallon diesel UST. The tank, installed in 1984, was removed in 1992 and replaced with an above ground storage tank (AST). This AST is listed in the inventory records as a 550-gallon Clemco generator tank (A296.0) used to store diesel fuel, and is listed as active (Environmental Department, 2009). No oil/water separators are listed for Building 296 on the NAS Brunswick Revised Oil/Water Separator List (PWD, 2008b).

**4. SITE VISIT AND INVESTIGATION**

A site visit was conducted on September 30, 2010 by Mr. Brandon Smith, P.E. and Mindi Messmer of Tetra Tech. The purpose of the visit was to verify information gathered during the records search and to collect additional information as necessary to prepare this closure report. Tetra Tech personnel were accompanied by Mr. D. Bruce Smith, the NAS Brunswick Hazardous Waste Manager. The area of former Building 296, Old TACAN Transmitter Building, was visually inspected for signs of hazardous waste generation or storage. Site visit observations, recorded on the attached Building Inspection Form <sup>(1)</sup>, are summarized below:

- The area of the now-demolished Building 296 included the concrete slab from the former building, a pad-mounted transformer, a small generator building mounted on a concrete pad, a VASI Controller on a concrete pad, and a diesel AST. A switch transformer, also associated with Building 296, was located southeast of the former building.

- No remnants or evidence of the Old TACAN battery rack were observed; the equipment and flooring were removed when the building was demolished in 2005.
- One concrete-pad-mounted transformer was identified on the northeast side of former Building 296. No evidence of a past leak from this transformer was observed.
- One concrete-pad-mounted switch transformer was identified southeast of former Building 296. No evidence of a past leak from this transformer was observed.
- One AST was identified on the northeastern side of former Building 296. The tank appeared to be in good condition and no evidence of a past leak from this AST was observed. NAS Brunswick Environmental personnel reported that the tank had been emptied and cleaned, but that closure paperwork had not yet been submitted to the MEDEP.
- A petroleum-like odor was detected in the generator building but no staining was observed on the building floor. NAS Brunswick Environmental personnel reported that an internal generator engine coolant leak had leaked coolant to the crankcase. While the generator is not operable, the Navy plans to leave the generator in place for possible engine rebuilding and reuse.
- No evidence of current or past hazardous waste generation was observed.
- No evidence of hazardous waste residues was observed.
- With the exception of the odor in the generator building discussed above, no other signs of a past release (staining, unusual odors, stressed vegetation, etc.) were observed and no structural modifications, which could conceal signs of a past release, were observed.
- No hazardous waste storage areas or hazardous waste accumulation areas were observed.
- No peeling/chipping paint was observed, as there was no structure present at the time of the site visit.

Due to the age of the former building, soil sampling was conducted to evaluate the possibility of a former release from historical transformers. On October 14, 2010, soil samples were collected from each side of each of the two pad-mounted transformers, the transformer in the more northern portion of the Building 296 area, and the switch transformer in the southern area (Figure 3). At each location, hand-augers were used to collect samples from 0- to 6-inches and from 6- to 24-inches below ground surface (bgs).

The soil samples were submitted to Analytics Environmental Laboratory, Portsmouth, New Hampshire for PCB analysis. The analytical results underwent limited data validation, including blank contamination evaluation and completeness evaluation. As presented in Tables 1 and 2, none of the samples contained PCBs at levels above the EPA Regional Screening Levels (RSLs) for Residential Soil or the MEDEP action limit for PCB spills (EPA, 2010).

Based on the records research findings and site visit observations, it was determined that neither further inspection nor sampling of Building 296 is required to complete the MEDEP hazardous waste closure requirements.

## **5. HAZARDOUS WASTE GENERATION AND STORAGE**

Based on the records research, site visit observations, and NAS Brunswick Environmental Department personnel interviews, with the exception of universal waste, no hazardous waste generation, hazardous waste accumulation, or hazardous waste storage occurred at Building 296.

## **6. OTHER ENVIRONMENTAL CONSIDERATIONS**

Any electrical transformers, USTs, or ASTs known to be associated with Building 296 are discussed in Section 3. No additional transformers or tanks are known of and none were observed in the immediate vicinity of Building 296. No oil/water separators are known to be associated with Building 296.

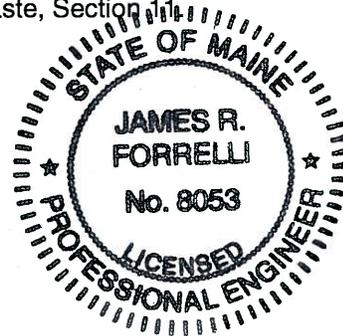
## **7. LIMITATIONS**

This investigation of the hazardous waste closure requirement applies to the building footprint of former Building 296 (building footprint as shown on Figure 2). It does not apply to the land surrounding or the groundwater underlying Building 296.

**8. CERTIFICATION**

Based on the findings of this investigation, there have been no activities resulting in the generation, accumulation, or storage of hazardous waste at Building 296 at NAS Brunswick, Maine. Therefore, the hazardous waste closure of Building 296 was completed in accordance with the provisions of MEDEP Regulations Chapter 851, Standards for Generators of Hazardous Waste, Section 11.

  
 James Forrelli, P.E.  
 Senior Project Engineer  
 Tetra Tech NUS, Inc.



(1) The Building Inspection Form provides preliminary information collected during the building inspection, including information from visual observations, Navy personnel interviews, and from documents reviewed during file reviews. It does reflect any additional information provided at a later date that further clarifies or corrects preliminary information collected during the building inspection and file reviews.

**REFERENCES**

Environmental Department, 1988. Environmental Incident Log - Book No. 1, July 1988-November 1999, Naval Air Station Brunswick Environmental Department, Brunswick, Maine.

Environmental Department, 1999. Environmental Incident Log - Book No. 2, December 1999-July 2005, Naval Air Station Brunswick Environmental Department, Brunswick, Maine.

Environmental Department, 2009. Master/Historical Aboveground and Underground Storage Tank Inventory. NAS Brunswick, Maine. February.

Environmental Department, 2010. Hazardous Waste Database, Naval Air Station Brunswick Environmental Department, Brunswick, Maine.

MEDEP, 2010. MEDEP Spills Database. Maine Department of Environmental Protection, Augusta, Maine.

PWD (Public Works Department), 1943. "Building Site Plan Showing Location of Underground Water Distribution Lines and Hydrants," US NAS Brunswick, Maine. September 4.

PWD, 1946. "Map of US Naval Air Station, Brunswick, Maine, Showing conditions on June 30, 1946," NAS Brunswick, Maine. June 30.

PWD, 1952. "Map of US Naval Air Station, Brunswick, Maine, Showing conditions on June 30, 1952," NAS Brunswick, Maine. June 30.

PWD, 1956. General Station Map, Enclosure 2. , NAS Brunswick, Maine.

PWD, 1957. "Map of US Naval Air Station, NAS Brunswick, Maine.

PWD, 1965. "Index of Structures, Department of the Navy Bureau of Yards & Docks Department," US Naval Air Station Brunswick, Maine. Updated May 13.

PWD, 1975. General Development, Existing and Planned, Operations Area, US Naval Air Station, Brunswick, Maine.

## FINAL

PWD, 1976. "Index of Structures, Naval Facilities Engineering Command, Northeast Division Drawing No. 747 256," Naval Air Station Brunswick, Maine. Updated September 21.

PWD, 1977. "V.O.R.T.A.C. Alterations, Building 296", Sheet 1 of 2, NAVFAC Drawing No. 2,023,889, PWD Drawing No. 1688." NAS Brunswick, Maine. Approved April 12, 1977, Last Revision May 24, 1977.

PWD, 1989. "Existing Conditions Map. Public Works Department Drawing No. 2157" NAS Brunswick, Maine. Revised April 2.

PWD, 1991. "VORTAC Extension, Building 296", (As Built), Sheet 1 of 1, NAVFAC Drawing No. 2116580, NAS Brunswick, January 11.

PWD, 2003. "NAS Brunswick, Facility List," US Naval Air Station, Brunswick, Maine, NAS Brunswick, Maine. March 9.

PWD, 2006. Brunswick Naval Air Station, NAS Brunswick, Maine.

PWD, 2008a. "Draft NAS Brunswick, Facility List," US Naval Air Station, Brunswick, Maine, NAS Brunswick, Maine. March.

PWD, 2008b. Revised Oil/Water Separator List, Table J-C4(a). NAS Brunswick, Maine. January 1.

PWD, 2009. Master Transformer Database. NAS Brunswick, Maine. June 24.

Sewall, (James W. Sewall Company), 1953. NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. June 29.

Sewall, 1958. NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. October 9.

Sewall, 1978. NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. November 22.

Sewall, 1981. NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. October 17.

Sewall, 1984. NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. April 23.

Sewall, 1989. NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. April 2.

Sewall, 1993. NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. November 8.

Sewall, 1997. NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. May 27.

U.S. Environmental Protection Agency (EPA), 2010. Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites. <http://www.epa.gov/region9/superfund/prg/>. May.

**TABLE 1  
SOIL SAMPLE PCB RESULTS – TRANSFORMER (NORTH)  
RCRA PARTIAL CLOSURE REPORT  
BUILDING 296 – OLD TACAN TRANSMITTER BUILDING  
NAVAL AIR STATION BRUNSWICK, MAINE**

SAMPLE ID <sup>(1)</sup>	EPA RSLs <sup>(2)</sup> (µg/kg)	B296-SB01-0006	B296-SB01-0624	B296-SB02-0006	B296-SB02-0624	B296-SB02-0624 (Duplicate)	B296-SB03-0006	B296-SB03-0006 (Duplicate)	B296-SB03-0624	B296-SB04-0006	B296-SB04-0624
LOCATION		southeast side transformer pad	southeast side transformer pad	southwest side transformer pad	southwest side transformer pad	southwest side transformer pad	northwest side transformer pad	northwest side transformer pad	northwest side transformer pad	northeast side transformer pad	northeast side transformer pad
MATRIX		soil									
DEPTH		0-6 inches bgs	6-24 inches bgs	0-6 inches bgs	6-24 inches bgs	6-24 inches bgs	0-6 inches bgs	0-6 inches bgs	6-24 inches bgs	0-6 inches bgs	6-24 inches bgs
SAMPLE DATE		10/14/10	10/14/10	10/14/10	10/14/10	10/14/10	10/14/10	10/14/10	10/14/10	10/14/10	10/14/10
PCB (µg/kg)											
Aroclor-1016	3,900	16.5 U									
Aroclor-1221	140	16.5 U									
Aroclor-1232	140	16.5 U									
Aroclor-1242	220	16.5 U									
Aroclor-1248	220	16.5 U									
Aroclor-1254	220	16.5 U	16.5 U	16.5 U	16.5 UJ	89 J	16.5 U				
Aroclor-1260	220	16.5 U									
Total PCBs <sup>(3)</sup>	1,000 <sup>(3)</sup>	16.5 U	16.5 U	16.5 U	16.5 U	89	16.5 U				

Notes:

- (1) Sample prefix "NASB" is not shown
- (2) EPA Regional Screening Levels [RSLs] for residential soil provided for informational purposes
- (3) MEDEP action limit for PCB spill (1 milligram per kilogram)
- bgs below ground surface
- µg/kg micrograms per kilogram
- U not detected (with associated detection limit)
- J approximate concentration due to results of data validation
- UJ not detected (with associated approximate detection limit)
- PCB polychlorinated biphenyl

**TABLE 2  
SOIL SAMPLE PCB RESULTS – SWITCH TRANSFORMER (SOUTH)  
RCRA PARTIAL CLOSURE REPORT**

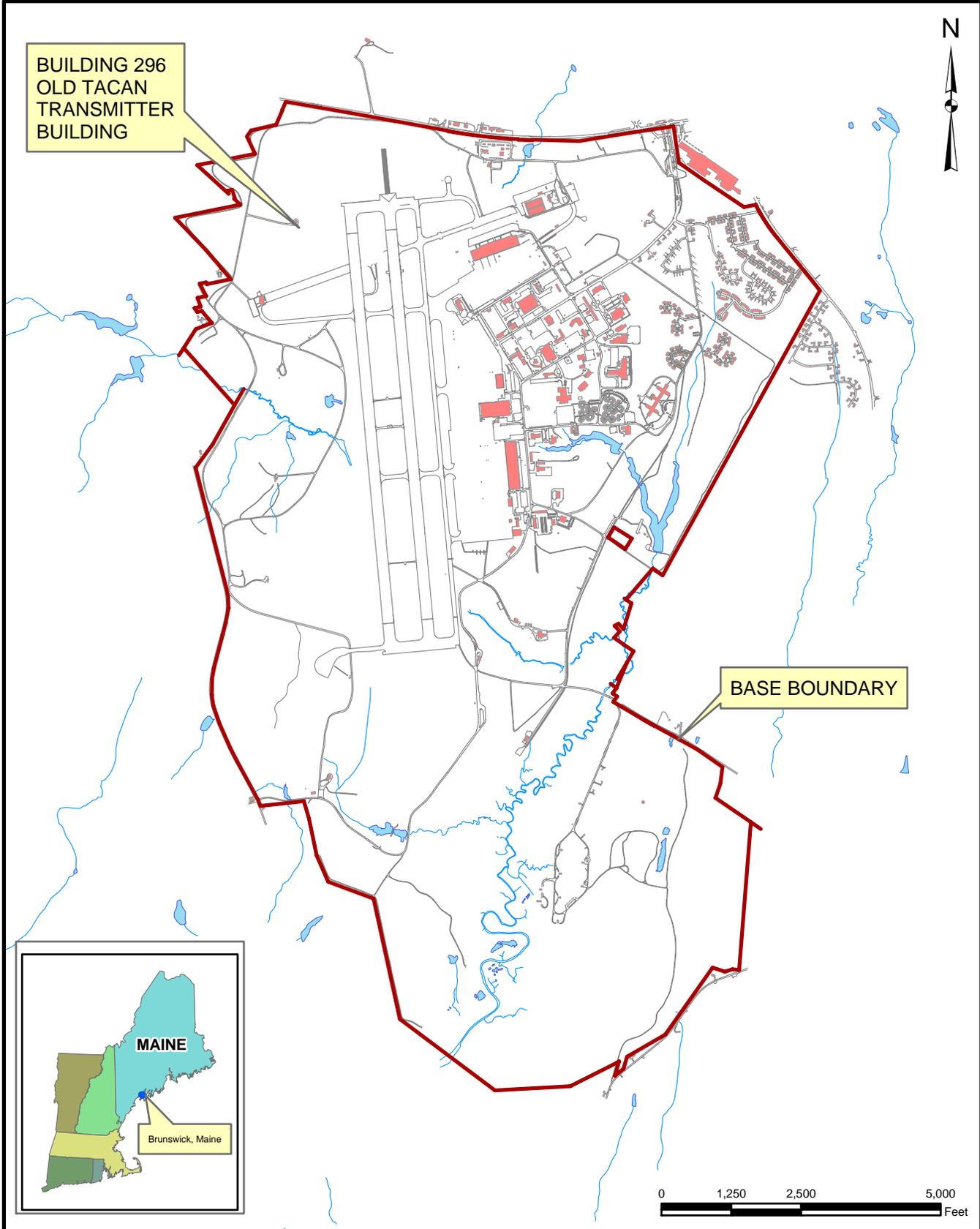
**BUILDING 296 – OLD TACAN TRANSMITTER BUILDING  
NAVAL AIR STATION BRUNSWICK, MAINE**

SAMPLE ID <sup>(1)</sup>	EPA RSLs <sup>(2)</sup> (µg/kg)	B296-SB05-0006	B296-SB05-0624	B296-SB06-0006	B296-SB06-0624	B296-SB07-0006	B296-SB07-0624	B296-SB08-0006	B296-SB08-0624
LOCATION		south side switch transformer pad	south side switch transformer pad	east side switch transformer pad	east side switch transformer pad	north side switch transformer pad	north side switch transformer pad	west side switch transformer pad	west side switch transformer pad
MATRIX		soil	Soil	soil	soil	soil	soil	soil	soil
DEPTH		0-6 inches bgs	6-24 inches bgs	0-6 inches bgs	6-24 inches bgs	0-6 inches bgs	6-24 inches bgs	0-6 inches bgs	6-24 inches bgs
SAMPLE DATE		10/14/10	10/14/10	10/14/10	10/14/10	10/14/10	10/14/10	10/14/10	10/14/10
<b>PCB (µg/kg)</b>									
Aroclor-1016	3,900	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U
Aroclor-1221	140	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U
Aroclor-1232	140	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U
Aroclor-1242	220	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U
Aroclor-1248	220	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U
Aroclor-1254	220	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U
Aroclor-1260	220	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U
Total PCBs <sup>(3)</sup>	1,000 <sup>(3)</sup>	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U	16.5 U

Notes:

- (1) Sample prefix "NASB" is not shown
- (2) EPA Regional Screening Levels [RSLs] for residential soil provided for informational purposes
- (3) MEDEP action limit for PCB spill (1 milligram per kilogram)
- bgs below ground surface
- µg/kg micrograms per kilogram
- U not detected (with associated detection limit)
- J approximate concentration due to results of data validation
- UJ not detected (with associated approximate detection limit)
- PCB polychlorinated biphenyl

BUILDING 296  
OLD TACAN  
TRANSMITTER  
BUILDING



BASE BOUNDARY



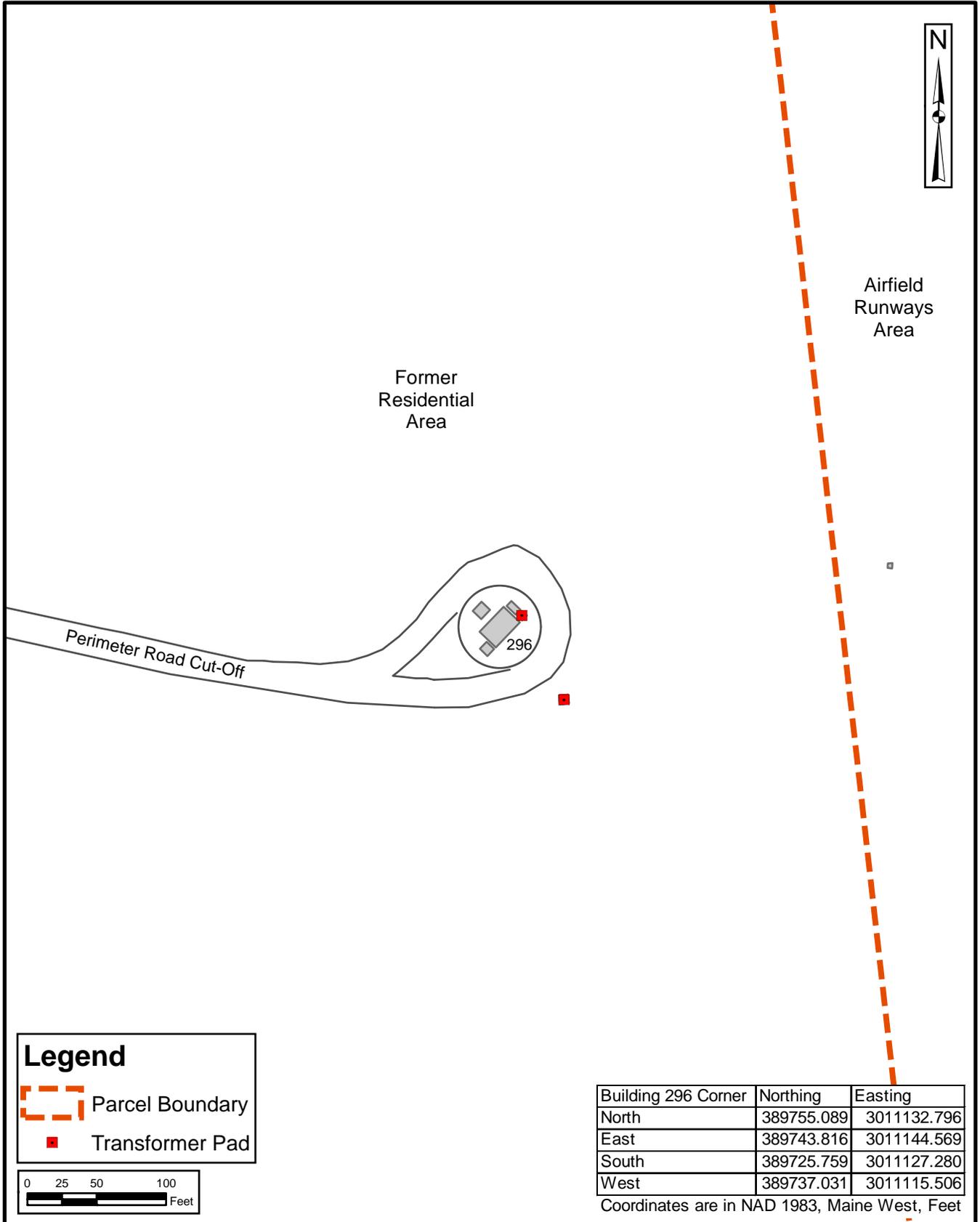
0 1,250 2,500 5,000 Feet



Tetra Tech NUS, Inc.

SITE LOCATION MAP  
 BUILDING 296 - OLD TACAN TRANSMITTER BUILDING  
 RCRA PARTIAL CLOSURE REPORT  
 NAVAL AIR STATION BRUNSWICK, MAINE

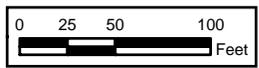
SCALE AS NOTED	
FILE I:\WASB_BLDG_296_LOCUS.MXD	
REV 0	DATE 11/16/10
FIGURE NUMBER 1	



**Legend**

Parcel Boundary

Transformer Pad



Building 296 Corner	Northing	Easting
North	389755.089	3011132.796
East	389743.816	3011144.569
South	389725.759	3011127.280
West	389737.031	3011115.506

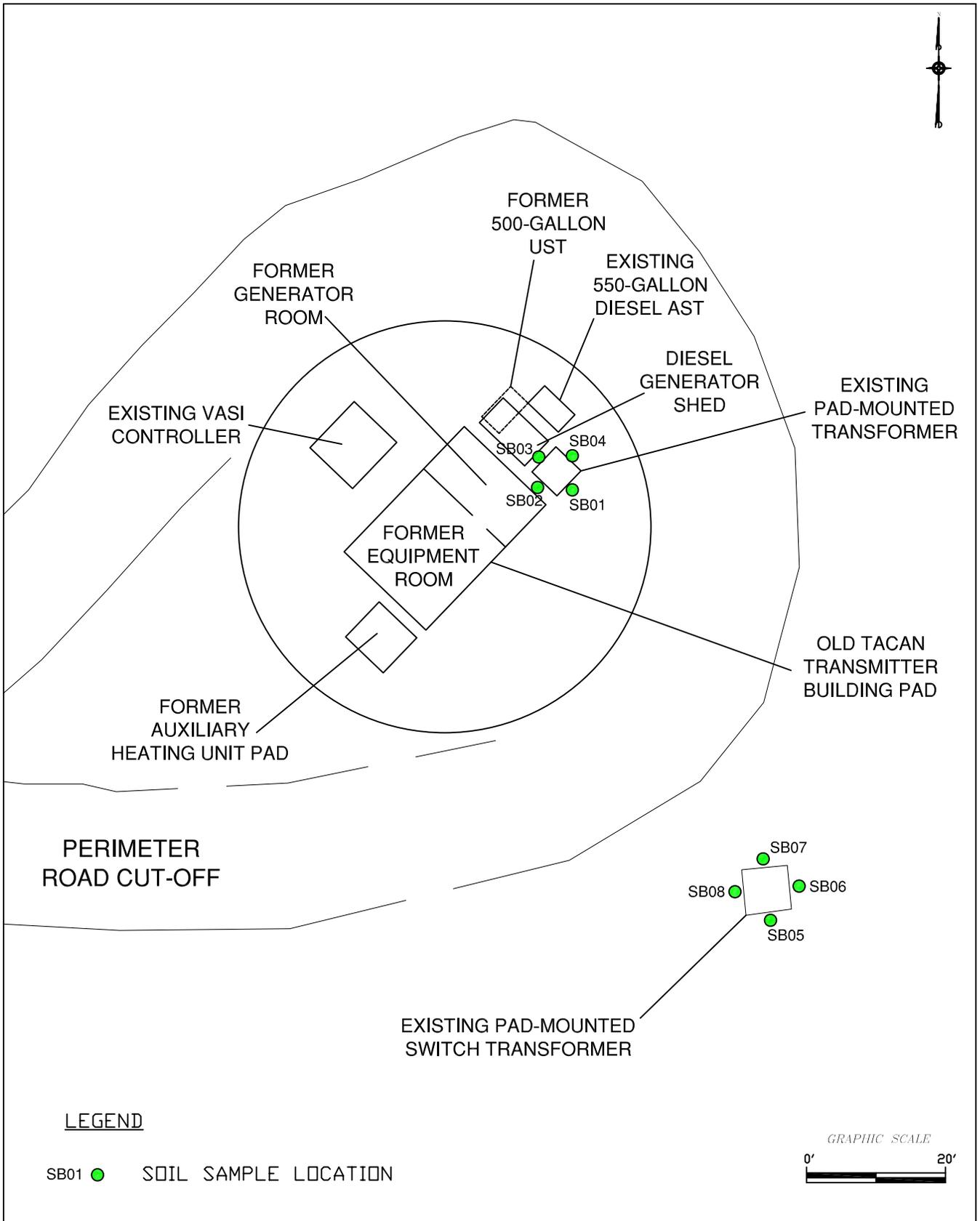
Coordinates are in NAD 1983, Maine West, Feet



Tetra Tech NUS, Inc.

**SITE MAP**  
 BUILDING 296 - OLD TACAN TRANSMITTER BUILDING  
 RCRA PARTIAL CLOSURE REPORT  
 NAVAL AIR STATION BRUNSWICK, MAINE

SCALE AS NOTED	
FILE I:\NASB_BLDG_296_SITE_MAP.MXD	
REV 0	DATE 11/18/10
FIGURE NUMBER FIGURE NO. 2	



**LEGEND**

SB01 ● SOIL SAMPLE LOCATION



 <b>TETRA TECH NUS, INC.</b>	<b>SAMPLE LOCATION MAP</b> <b>BUILDING 296 - OLD TACAN TRANSMITTER BUILDING</b> <b>RCRA PARTIAL CLOSURE REPORT</b> <b>NAVAL AIR STATION BRUNSWICK, MAINE</b>	<b>SCALE</b> <b>AS NOTED</b>
		<b>FILE</b> \.\NASB_BLDG_296_FP.DWG
		<b>REV</b> <b>DATE</b> 0          11/18/10
		<b>FIGURE NUMBER</b> <b>FIGURE NO. 3</b>

**HWSA INSPECTION REPORT  
HAZARDOUS WASTE STORAGE AREAS CLOSURE  
NAS BRUNSWICK  
BRUNSWICK, MAINE  
CTO WE22**

**Inspection Date:** 9/30/2010

**Personnel:** Brandon Smith, P.E. /Mindi Messmer

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

**GENERAL BUILDING INFORMATION / USES**

Building Name: Old Tacan Transmitter (VORTAC (ANT))

Function: Tactical Air Navigation (TACAN) system

Size: 408 SF

Year of Construction: 1956, demolished 2005.

Building 296 is located in the northwestern portion of NAS Brunswick on Cutoff Road, a dirt road traced east from Perimeter Road, located approximately 1000 feet from the northwest corner of the existing runway. It was constructed in 1956 and demolished in 2005. The building consisted of a platform equipped with a top mounted navigation antenna and an electronics equipment building beneath. The facility included a stationary, emergency generator located at ground level.

Building 296 consisted of a 408 square-foot building built on a concrete slab and was used as a TACAN system for its entire history. Power was provided to the electronics building by underground power lines connected to other TACAN buildings located south of Building 296.

**HWSA INSPECTION / CONDITION**

- The TACAN consisted of a concrete slab which housed the former building, a pad-mounted transformer, a small generator building mounted on a concrete pad, a VASI Controller on a concrete pad, and a diesel AST. A switch transformer, also associated with Building 296 was located southeast of Building 296.
- The TACAN was not in use at the time of the site visit. The building had been demolished prior to the site visit.
  
- One concrete-pad-mounted transformer was identified on the northeast side of Building 296. No evidence of a past leak from this transformer was observed.
- One concrete-pad-mounted switch transformer was identified southeast of Building 296. No evidence of a past leak from this transformer was observed.
- One AST was identified on the northeastern side of Building 296. The tank appeared to be in good condition and no evidence of a past leak from this AST was observed.
- No evidence of current or past hazardous waste generation was observed.
- No evidence of hazardous waste residues was observed.
- No signs of a past release (staining, unusual odors, stressed vegetation, etc.) were observed and no structural modifications, which could conceal signs of a past release, were observed.
- No hazardous waste storage areas or hazardous waste accumulation areas were observed.
- No peeling/chipping paint was observed, as there was no structure.

**POTENTIAL PCB-CONTAINING TRANSFORMERS**

The NAS Brunswick Transformer Database lists two electrical transformers associated with Building 296. One non-PCB containing pad-mounted transformer is located on the northeast side of the slab for former Building 296. A 3-way oil switch transformer was also located to the southeast of Building 296. The following is a detailed listing of the electrical transformers associated with former Building 296:

<b>Transformer</b>	<b>Manufacturer</b>	<b>Serial No.</b>	<b>Removal Date</b>	<b>PCB Concentration (parts per million)</b>
75-kVa non-PCB	SB	CM2575533	Active	DRY- Non-PCB
Non-PCB 3-Way Oil Switch	Kyle (Cooper)	2Q9314281	Active	Non-PCB <1

No other transformers are listed in the transformer database associated with Building 296. However, due to the age of the building (1956) it is possible that former transformers were PCB-containing. Soil samples were collected around both transformer pads to assess potential PCB impacts to soil relating to historical transformers.

No signs of a past release (unusual odors, stains, stressed vegetation, etc.) were observed.

**APPLICABLE REPORTS / DOCUMENTS**

Available historical aerial photos and historical site plans were reviewed for past uses:

- 1943 map – Building 296 area not shown.
- 1946 map – Vacant area. Dirt access road shown extends east to southwest to the east of Building 296.
- 1952 map – Same as 1946 map.
- 1953 aerial – Resolution of aerial not good. Cannot see Building 296 area.
- 1956 map – Same as 1946 map. No dirt access road shown.
- 1957 map - Vortex Tower 296 shown.
- 1958 aerial – An antenna visible in the location of Building 296. No other structures observed due to shadow.
- 1975 map – Area not shown.
- 1978 aerial – Same as 1958 aerial.
- 1978 map – Building 296 shown along with Perimeter Cutoff Road. No other roads shown in area.
- 1979 map – Area not shown.
- 1981 aerial - Same as 1978 aerial.
- 1984 aerial – An antenna and other structures to the south and southeast visible of Building 296. Possible automobile or other structure to the northeast of the antenna.
- 1989 aerial – Circular structure with antenna visible in location of Building 296. No other structures are visible in the immediate vicinity.
- 1993 aerial – Same as 1989.
- 1997 aerial – Same as 1989.
- 2006 map – Building 296 shown on Cutoff Road off Perimeter Road approximately 1000 feet west of the northwestern corner of the airfield.

NAS historical site lists include Building 296 starting in 1965 through 2008. According to NASB records, one underground storage tank (UST) (296.0) a 550-gallon diesel UST installed in 1984 was removed in 1992 and replaced with as above ground storage tank (AST). One AST 550-gallon Clemco generator tank (A296.0) used to store diesel fuel is listed in the NASB records and was installed in 1992 and is listed as active. According to NASB records no oil-water separators (OWS) were registered to Building 296.

**HAZARDOUS WASTE STORAGE RECORDS**

No hazardous waste was historically stored at Building 296 according to NAS Brunswick Hazardous Waste Manager, D. Bruce Smith.

**MISCELLANEOUS NOTES**

The Tetra Tech personnel were accompanied on the inspection by D. Smith Hazardous Waste Manager.

**INSPECTOR SIGNATURE:** \_\_\_\_\_

**PHOTOGRAPHS**



No. 1 Building 296 – Old TACAN Transmitter Building, NAS Brunswick April 28, 2010  
Old TACAN Transmitter Building south elevation; in background from left to right: VASI Controller, generator building and transformer



No. 2 Building 296 – Old TACAN Transmitter Building, NAS Brunswick April 28, 2010  
Old TACAN Transmitter Building east elevation; transformer, generator building and diesel in foreground



No. 3 Building 296 – Old TACAN Transmitter Building, NAS Brunswick  
Old TACAN Transmitter Building diesel AST and generator building

April 28, 2010



No. 4 Building 296 – Old TACAN Transmitter Building, NAS Brunswick  
Old TACAN Transmitter Building generator building interior

April 28, 2010



No. 5 Building 296 – Old TACAN Transmitter Building, NAS Brunswick September 30, 2010  
Old TACAN Transmitter Building non-PCB containing three-way oil switch transformer located southeast of the building slab