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NAS BRUNSWICK  
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FINAL RESOURCE CONSERVATION AND RECOVERY ACT PARTIAL CLOSURE REPORT  
FOR BUILDING 43 WITH TRANSMITTAL LETTER NAS BRUNSWICK ME  
12/17/2010  
NAS BRUNSWICK

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

December 17, 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

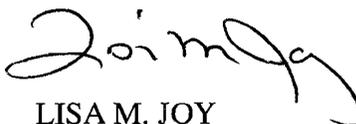
Subj: Final RCRA Partial Closure Report for Building 43

Dear Mr. Vigneault:

A copy of the Final RCRA Partial Closure Report for Building 43 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 43

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

**RCRA PARTIAL CLOSURE REPORT**  
for  
**BUILDING 43 – TELEPHONE EXCHANGE PARCEL**  
**NAVAL AIR STATION BRUNSWICK, MAINE**  
**USEPA IDENTIFICATION NUMBER ME8170022018**  
**DECEMBER 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 the Building 43 parcel at Naval Air Station Brunswick (NAS Brunswick).

## **2. PROPERTY DESCRIPTION**

The Building 43 parcel is located in the eastern-central portion of NAS Brunswick, within the former Commander Patrol and Reconnaissance Wing Five (CPRW-5) compound (Figure 1). The approximately 1.4-acre parcel is bordered by the following roads and parcels: to the north, by Beasley Circle and the Building 639 (Navy Information Operations Detachment [NIOD]) parcel and the Building 54 (Survival, Evasion, Resistance, and Escape [SERE]) parcel; to the east and south, by the Building 87 (Anti-Submarine Warfare Operations Center [ASWOC]) parcel; and to the west, by Pegasus Street and the Building 26 (Child Care Center) parcel, the Building 592 (Veterinary Clinic) parcel, and the Building 24 (Personnel Support Detachment [PSD]) parcel (Figure 2). In addition to Building 43 (Telephone Exchange), this parcel includes associated paved parking and grass-covered areas, and Structure VVV (Storage Shed).

Building 48 (Telephone Communications Vault) is located in the north-central portion of the parcel. This building is not owned by the Navy and is not addressed by the NAS Brunswick RCRA closure program.

Building 43 itself is located near the northeastern corner of the parcel (Figure 2). It was constructed in 1988 and consists of a 1,156-square-foot, single-story, concrete structure with stucco finish, on a concrete slab foundation. Building 43 has an electric baseboard heating system. Photographs of the building are provided as an attachment to this report.

Structure VVV is located at the southeastern corner of Building 43 and is used as a tool shed and for snow-blower storage. The shed is plastic and measures 4 feet by 6 feet by 4 feet.

## **3. PROPERTY HISTORY AND RECORDS RESEARCH**

The Tetra Tech NUS, Inc. (Tetra Tech) project team interviewed NAS Brunswick Environmental Department personnel and performed records research at both NAS Brunswick and the MEDEP office in Augusta, Maine to collect available information concerning the Building 43 parcel, 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 1958, 1978, 1981, 1984, 1989, 1993 and 1997 (Sewall, 1958, 1978, 1981, 1984, 1989, 1993 and 1997) were reviewed along with Public Works Department (PWD) site base maps dated 1943, 1946, 1952, 1956, 1957, 1975, 1989, and 2006 (PWD, 1943, 1946, 1952, 1956, 1957, 1975, 1989, and 2006a) to provide historical information, summarized below.

The historical site plan dated 1943 shows a wooded area at the location of the Building 43 parcel. Beginning with the 1946 aerial photograph, a complex of buildings surrounded by fencing and

identified as “Air Force Operations” occupied the area of the Building 43 parcel and the adjacent Building 87 parcel to the east. Based on available information, this former United States Air Force (USAF) facility was an Aircraft Control and Warning Radar Facility and was in operation until the mid-1960s, when the facility was transferred to the Navy. The portion of the facility that was located within the current Building 43 parcel included a portion of one building and two radar domes or towers. When the Navy took control of the facility, the structures were assigned Navy building identification numbers (596, 598, and 599), referenced in the discussion below. The historical building identification numbers and a summary of available information regarding these structures are presented below.

Navy ID	Air Force ID <sup>(1)</sup>	Year Constructed	Year Demolished	Description	Navy Use (past and current)
596	AF-1	1950 <sup>(4)</sup>	1988 <sup>(2)</sup>	one-story masonry building <sup>(1)</sup>	Communications Center <sup>(5)</sup> TSC/Communications Center (1976) <sup>(6)</sup>
598	AF-3	1950 <sup>(4)</sup>	1988 <sup>(2)</sup>	originally constructed as a radar dome	Storage <sup>(1)</sup> Classified Materials Disintegrator <sup>(5)</sup> Storehouse (1976) <sup>(6)</sup>
599	AF-R6	1950 <sup>(4)</sup>	1983 <sup>(3)</sup>	originally constructed as a radar dome	AMD <sup>(1)</sup> Inactive (PW) <sup>(5)</sup> Inactive (1976) <sup>(6)</sup>

1 Buildings and Structure List (Revised January 1, 1966)

2 Removals Plan Operations Control Center, NAVFAC Drawing 2076807, 1988

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

4 Construction date based on Building 594 construction date

5 Alphabetical Listing of Buildings and Numbers (date unknown)

6 Index of Structures (Update September 21, 1976)

AMD Aircraft Maintenance Division

In the 1956 historical site plan, former Building 596 (former ASWOC communications building) is shown on the Building 43 parcel, along with two additional tower structures, former Buildings 598 and 599 (former radar domes). The plans and photos also indicate that these three structures (listed above) were still present on the parcel between 1956 and 1983. On the 1984 aerial photograph, only one of the tower structures (Building 598) and Building 596 were present on the parcel. According to NAS Brunswick records, the existing Building 87 (east of the Building 43 parcel) was built in 1988 as an operations control center. The removal plan for the operations control center indicates that the former Buildings 596 and 598 (as well as other Buildings 593 and 612) were to be removed. With the exception of existing Building 594 (east of the Building 43 parcel), the 1989 aerial photograph indicates all historical buildings in the CPRW-5 compound were demolished prior to that photograph date. The 1989 photograph also shows the existing Building 43, roadways, and parking area in their current configuration. No further changes to the parcel are observed after 1989.

Little information is available regarding hazardous substance use and disposal practices that may have been conducted at the parcel when it was a former USAF facility. While there is no information that would suggest a release occurred, solvents were typically used for cleaning radar antennas and electrical equipment at these former radar facilities, such as the former USAF radar domes (former Buildings 598 and 599). Due to the uncertainties regarding USAF hazardous substance use and disposal practices, the Navy is conducting a groundwater sampling investigation at the former radar station area to determine if there is evidence of a historical release of solvents in this area. The potential for groundwater contamination at the Building 43 parcel will be addressed under this investigation.

According to MEDEP and NAS Brunswick spill records, no spills were reported in the vicinity of the Building 43 parcel (Environmental Department, 1988; Environmental Department 1999; and MEDEP, 2010).

According to historical NAS Brunswick building lists and NAS Brunswick Environmental Department personnel, since its construction in 1988, Building 43 has been used for a telephone exchange office.

There is no record of hazardous waste generation at Building 43 (Environmental Department, 2010).

The NAS Brunswick Removed Transformer Database lists no non-polychlorinated-biphenyl (non-PCB)-containing electrical transformers for Building 43 (PWD, 2010). A non-PCB-containing electrical transformer registered to Building 228 is located at the northern edge and within the Building 43 parcel. This transformer is addressed in this Building 43 partial RCRA closure report. Pertinent information regarding the transformer is provided in the table below.

Transformer	Manufacturer	Serial No.	Manufacture Date	Notes
Unknown voltage, non-PCB-containing, pad-mounted	AB Chance	860314 <sup>(1)</sup>	1986	Mineral Oil

(1) The first two digits of the serial numbers denote the year of manufacture (EES, 1998)

The serial number for the unit manufactured by AB Chance indicates that it was manufactured after 1979 and therefore is unlikely to contain PCBs. As of July 1, 1979, the United States Environmental Protection Agency (EPA) prohibited all manufacturing of new PCB electrical equipment (transformers and capacitors). Based on the construction dates of Buildings 43 and 228 (1988), PCB-containing transformers were not likely in service at the transformer pad at any time in the past.

The NAS Brunswick Aboveground Storage Tank (AST) and Underground Storage Tank (UST) inventory records for Building 43 indicate that no ASTs or USTs have been associated with Building 43.

No oil-water separators (OWS) have been associated with Building 43 (Navy, 2006).

No septic systems were identified within this parcel, which has historically been (and is currently being) served by the base-wide sanitary sewer system (Navy, 2006).

No groundwater investigations have been conducted in the vicinity of the Building 43 parcel; therefore, groundwater characterization information for the parcel is not available. Information on known NAS Brunswick groundwater contamination areas was reviewed to determine if groundwater underlying the Building 43 parcel could potentially be impacted by another (off-parcel) source area. The only identified groundwater contamination that could potentially impact the parcel is the dissolved-phase hydrocarbon plume associated with the Old Navy Fuel Farm (ONFF). The ONFF was decommissioned in 1993 and remediated in 2000. Based on results from the ONFF groundwater monitoring program, the leading edge of this plume is located approximately 900 feet north of Building 43, and the groundwater flow direction from the ONFF is to the southeast (ESI, 2009). Based on the location of the plume with respect to the Building 43 parcel, it is very unlikely that groundwater underlying the parcel would be impacted by the ONFF hydrocarbon plume.

**4. SITE VISIT AND INVESTIGATION**

A site visit was conducted for Building 43 on November 11, 2010 by Mr. Brandon Smith, P.E., and Mr. Brian Geringer 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 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:

- At the time of inspection, Building 43 was occupied and in good condition.
- No evidence of current or past hazardous waste generation activities was observed.
- No signs of a past release (staining, unusual odors, stressed vegetation, etc.) were observed.
- No modifications to the structure, which may conceal signs of a past release, were observed.
- No peeling or flaking paint was observed on the exterior or interior of the building.

Based on the available information regarding the historical activities that occurred at the parcel and the location of known NAS Brunswick groundwater contamination areas, there is no evidence to suggest that groundwater underlying the Building 43 parcel has been adversely impacted by a release, either from within the parcel or from another (off-parcel) source area.

Based on the records research findings and site visit observations, it was determined that neither further inspection nor sampling of the Building 43 parcel is required to complete the MEDEP hazardous waste closure requirements.

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

Based on the records research, site visit observations, sampling results, and NAS Brunswick Environmental Department personnel interviews, with the exception of universal waste, no hazardous waste generation, accumulation, or storage occurred at Building 43 itself. It's likely that during the use of the Building 43 parcel as a USAF radar facility in the 1950s, spent chlorinated solvent waste was generated as part of the maintenance of radar antennas and electrical equipment. There is no information available concerning the quantities of hazardous waste that may have been generated or the waste storage and disposal practices during the timeframe of the radar facility operation, and there is no information that would suggest a release of hazardous waste has occurred at the parcel.

## **6. OTHER ENVIRONMENTAL CONSIDERATIONS**

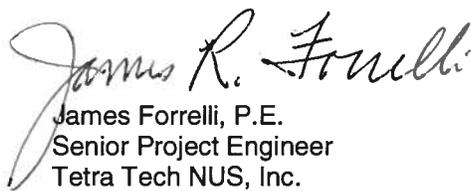
No USTs or ASTs are known to be associated with the Building 43 parcel and none were observed in the immediate vicinity of the Building 43 parcel.

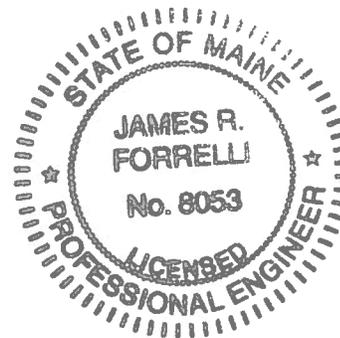
## **7. LIMITATIONS**

This investigation of the hazardous waste closure requirement applies to the Building 43 parcel (as shown on Figure 2) only.

## 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 the Building 43 parcel during the period of time that it was under control of NAS Brunswick. However, hazardous waste may have been generated in the 1950s when the parcel was occupied by a former USAF radar station. Therefore, in accordance with the provisions of MEDEP Regulations Chapter 851, Standards for Generators of Hazardous Waste, Section 11, the hazardous waste closure of the Building 43 parcel was completed, with the exception of possible residual groundwater contamination that may be present as a result of a potential historical release associated with the former USAF radar station. Potential groundwater contamination at the former radar station area will be investigated by the Navy in a future groundwater investigation.

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



<sup>(1)</sup> 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.
- ESI (Ecor Solutions, Inc.), 2009. Final Groundwater Monitoring Report, April 2008 and October 2008 Sampling Events, Old Navy Fuel Farm, Naval Air Station Brunswick, Maine. September.
- MEDEP (Maine Department of Environmental Protection), 2010. Spills Report Master List. Maine Department of Environmental Protection, Augusta, Maine. Updated November 1.
- NAS Brunswick Environmental Department. NAS Brunswick Transformer Database.
- Navy, 2006. Department of the Navy, Base Realignment and Closure Program Management Office, Final (Revision 2) Environmental Condition of Property Report for the Naval Air Station, Brunswick, Maine, NAS Brunswick, Maine. May 30.
- 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, 1966. "Building and Structure List, U.S. Naval Air Station, Brunswick, Maine". January 1.

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

PWD, 1976. "Index of Structures, Naval Air Station, Brunswick, Maine". September 21.

PWD, 1978. "Repair Storage Magazines, Area Location & Index of Drawings" US Naval Air Station, Brunswick, Maine. August 12.

PWD, 1979. ""Existing Conditions Map. Operations Area" US Naval Air Station, Brunswick, Maine. June 12.

PWD, 1983. "Existing Conditions Map. Operations Area, Public Works Department Drawing No. 2156," NAS Brunswick, Maine. May 5.

PWD, 1988. Removals Plan Operations Control Center, NAVFAC Drawing 2076807, 1988

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

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

PWD, 2006b. "NASB Facility List, Naval Air Station, Brunswick, Maine". March.

PWD, 2008. "NAS Brunswick Facility List, NAS Brunswick". March.

PWD. 2010. Transformer Database. NAS Brunswick, Maine.

Sewall (James W. Sewall Company), 1958. NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, Maine. October 9.

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

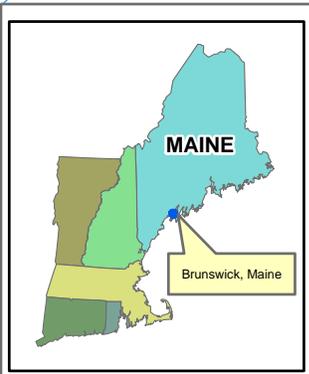
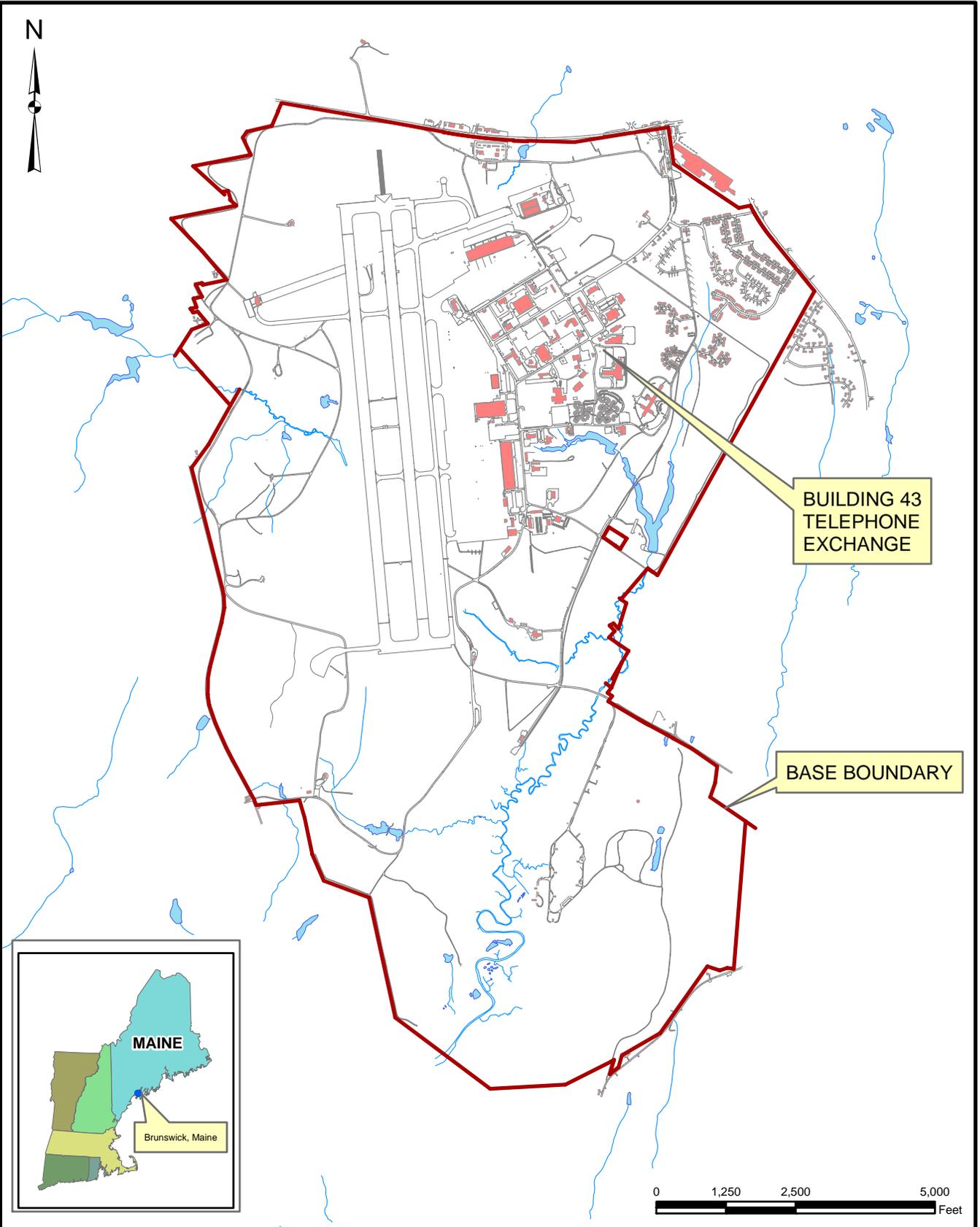
Sewall, 1981. NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, Maine. October 17.

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

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

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

Sewall, 1997. NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, Maine.

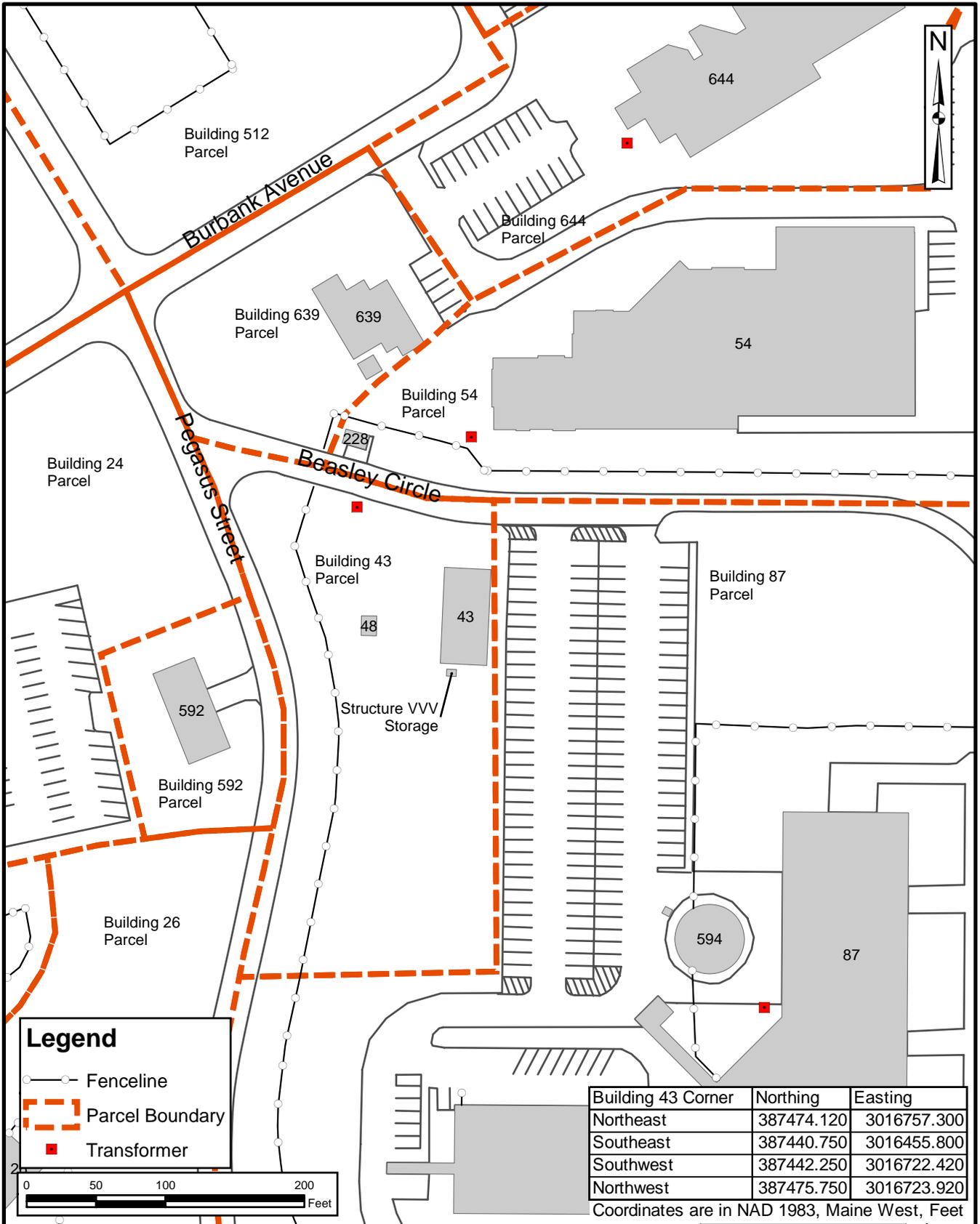


Tetra Tech NUS, Inc.

SITE LOCATION MAP  
 BUILDING 43 - TELEPHONE EXCHANGE PARCEL  
 RCRA PARTIAL CLOSURE REPORT  
 NAVAL AIR STATION BRUNSWICK, MAINE

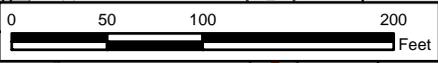
SCALE AS NOTED	
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REV 0	DATE 12/10/10
FIGURE NUMBER 1	

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**Legend**

- Fenceline
- Parcel Boundary
- Transformer



Building 43 Corner	Northing	Easting
Northeast	387474.120	3016757.300
Southeast	387440.750	3016455.800
Southwest	387442.250	3016722.420
Northwest	387475.750	3016723.920

Coordinates are in NAD 1983, Maine West, Feet



Tetra Tech NUS, Inc.

**SITE PLAN**  
**BUILDING 43 - TELEPHONE EXCHANGE PARCEL**  
**RCRA PARTIAL CLOSURE REPORT**  
**NAVAL AIR STATION BRUNSWICK, MAINE**

SCALE AS NOTED	
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REV 0	DATE 12/10/10
FIGURE NUMBER FIGURE NO. 2	

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

**Inspection Date: 11/10/10**

**Personnel: Brandon Smith, P.E. / Brian Geringer**

**Weather: Partly Cloudy, 40s**

**GENERAL BUILDING INFORMATION / USES**

Building Name: Building 43 – Telephone Exchange

Function: NAS Brunswick Telephone Exchange

Size: 1,156 SF

Year of Construction: 1988

Building 43 is located in the eastern-central portion of NASB Brunswick within the CPRW-5 compound and is bordered to the north by Beaseley Circle, to the east by Building 87 and a parking area, to the south by Building 87 and Beaseley Circle and to the west by Pegasus Street and Building 48. It was constructed in 1988 and served as a telephone exchange. Building 43 consists of a 1,156-square foot, single story concrete building with stucco exterior on a concrete slab foundation. The interior consists of administrative offices, restrooms, an equipment room containing the telephone switches and an exterior electrical room.

Building 43 is heated via electric baseboard heat.

**HWSA INSPECTION / CONDITION**

No record of hazardous waste stored at Building 43.

At the time of inspection, Building 43 was in good condition.

No evidence of current or past hazardous waste generation activities was observed.

No evidence of hazardous waste residues was observed.

No signs of a past release (staining, unusual odors, stressed vegetation, etc.) were observed. No modifications to the structure, which may conceal signs of a past release, were observed.

No hazardous waste storage areas or hazardous waste accumulation areas were observed.

**POTENTIAL PCB-CONTAINING TRANSFORMERS**

The following transformer is located within the Building 43 parcel (it is associated with Building 228 located north of Beaseley Circle outside the Building 43 parcel):

Unknown voltage, AB Chance pad-mounted transformer (serial #860314) containing mineral oil.

**APPLICABLE REPORTS / DOCUMENTS**

Available historical aerial photos and base maps were reviewed for past uses:

1943 map – Vacant.

1946 map – Two unmarked roads shown within parcel. Parcel is labeled “Operation (AF)” and “(AF).”

1952 map – Same as 1946 map.

1956 map – Air Force Towers 598 and 599 present on Building 43 parcel.

1957 map – Air Force Buildings 596, 598, and 599 are shown on the approximate Building 87 parcel.

1958 aerial – Air Force Buildings 596, 598, and 599 present on Building 43 parcel.

1975 map – Same as 1957 map.

1978 aerial – same as 1958 aerial.

1978 map – Buildings on Building 43 parcel are not shown.

1979 map – Buildings shown are same as 1975 map.

1981 aerial – same as 1978 aerial.

1983 map – Building 87 and likely Building 594 are shown within CPRW5 compound only.

1984 aerial – same as 1981 aerial except Building 599 has been removed.

1989 map – Same as 1983 map.

1989 aerial – Building 43 present with Buildings 87 and 594 on adjacent parcel.

1993 aerial – Building 43 present with Buildings 87 and 594 and associated parking on adjacent parcel.

1997 aerial – Building 43 present with Buildings 87 and 594 and associated parking on adjacent parcel.

2006 map – Same as 1989 map except Buildings 48 is now shown within the Building 43 parcel.

There are no underground storage tanks (USTs), above ground storage tanks (ASTs), or oil-water separators (OWS) registered to Building 43.

**HAZARDOUS WASTE STORAGE RECORDS**

No hazardous waste was historically stored at Building 43 according to NAS Brunswick Hazardous Waste Manager, D. Bruce Smith.

**MISCELLANEOUS NOTES**

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

(SEE ATTACHED PHOTOGRAPHS)

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



**PHOTOGRAPHS**



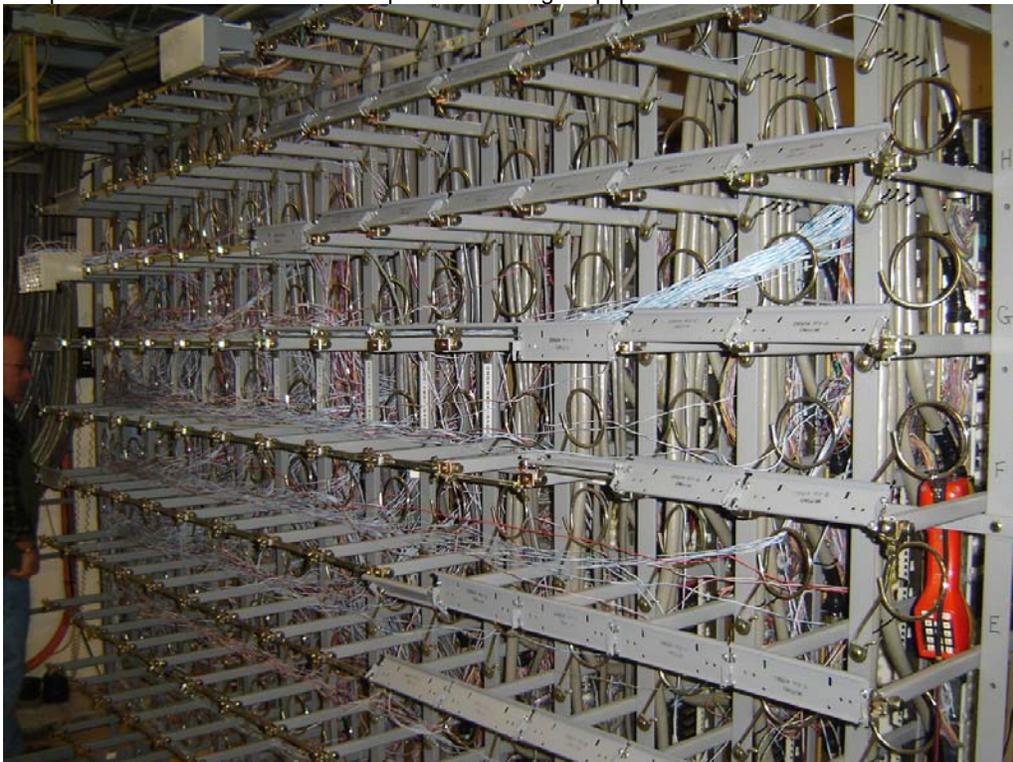
No. 1 Building 43 – Telephone Exchange Parcel, NAS Brunswick November 11, 2010  
Telephone Exchange west elevation.



No. 2 Building 43 – Telephone Exchange Parcel, NAS Brunswick November 11, 2010  
Structure VVV – Tool shed and snow blower storage



No. 3 Building 43 – Telephone Exchange Parcel, NAS Brunswick November 11, 2010  
Telephone cable bundles in the Telephone Exchange equipment/switch room



No. 4 Building 43 – Telephone Exchange Parcel, NAS Brunswick November 11, 2010  
Telephone equipment in the Telephone Exchange equipment/switch room