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NAS BRUNSWICK
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FINAL RESOURCE CONSERVATION AND RECOVERY ACT PARTIAL CLOSURE REPORT FOR BUILDING 47 WITH TRANSMITTAL LETTER NAS BRUNSWICK ME

1/6/2011

NAS BRUNSWICK

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

January 6, 2011

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 47

Dear Mr. Vigneault:

A copy of the Final RCRA Partial Closure Report for Building 47 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.

Sincerely,

LISA M. JOY
Environmental Director

Enclosure: (1) Final RCRA Partial Closure Report for Building 47

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

RCRA PARTIAL CLOSURE REPORT
for
BUILDING 47 – FITNESS CENTER STORAGE
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 Building 47 at Naval Air Station Brunswick (NAS Brunswick).

2. PROPERTY DESCRIPTION

Building 47, Fitness Center Storage, is located in the north-central portion of NAS Brunswick (Figure 1). The building is within the southwest portion of the Old Navy Fuel Farm (ONFF), and within the boundaries of the ONFF Petroleum, Oils, and Lubricant (POL) Site (Figure 2), which is currently being remediated under the POL program due to a diesel range organics (DRO) groundwater plume. Building 47 is located in the southwest portion of the Old Navy Fuel Farm (ONFF) RCRA Partial Closure Area.

Building 47 is bordered immediately to the north and northeast by ball fields; to the east and south by Avenue B, and beyond to the south by Fitch Avenue; and to the west by a portion of a ball field, by Sixth Street, and by Installation Restoration Program (IRP) Site 17 beyond (Figure 2). Site 17 (Former Building 95), which borders the ONFF POL Site to the west, is the former location of NAS Brunswick pesticides and herbicides operations, and is being investigated by the IRP program.

Building 47 was constructed in 1996 and measures 1,350 square feet in area. It is a single-story, metal-frame structure, with a metal roof and metal-siding exterior walls installed on a concrete slab foundation. The building served as a biosparging treatment system for the ONFF POL Site from 1996 to 2005. Since 2005, Building 47 served as a storage facility for ball field equipment for the NAS Brunswick Morale, Welfare, and Recreation (MWR) Department. Its interior consists of a single room that contained remnants of the biosparging system (hood/exhaust fan, vents, explosion-proof electrical equipment, etc.). The building is heated by a ceiling-mounted electrical heater. Photographs of the exterior and interior of Building 47 are provided as an attachment to this report.

The investigation conducted under this report applies only to the building footprint of Building 47 (as shown on Figure 2). The ONFF Area RCRA Partial Closure Report addresses the land surrounding and the groundwater underlying Building 47.

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 Building 47, including past use and operations at this 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, along with Public Works Department (PWD) site base maps dated 1943, 1946, 1952, 1956, 1957, 1975, 1978, 1989, and 2006 (PWD, 1943, 1946, 1952, 1956, 1957, 1975, 1978, 1989, and 2006a). Additional

aerial photographs for the parcel, dated 1940, 1959, 1965, 1966, 1972, 1978, and 1980, were also reviewed (U.S. EPA, 1987). Site building lists for 1965, 1976, 2003, 2006, and 2008 (PWD, 1965, 1976, 2003, 2006b, and 2008a) were also reviewed to provide historical information, summarized below.

According to NAS Brunswick Environmental Department and Recreational Department personnel, since 2005, Building 47 has been used for the storage of ground maintenance equipment (lawnmower, snow blower, etc.) used at the ball fields. From 1996 to 1999, Building 47 was used to support the remedial treatment operations associated with the ONFF POL groundwater plume. During this time, the building housed electrical controls for the biosparging system, air compressors, and other ancillary, treatment-operations equipment. The system injected low-flow air through a series of lateral aeration trenches and sparge wells. No waste streams were treated inside Building 47. There is no record of hazardous waste generation or accumulation at Building 47 in the NAS Brunswick Hazardous Waste Database records (Environmental Department, 2010).

In the 1943 historical map, the current location of Building 47 is shown as a grass-covered portion of the former ONFF, with Building 95 to the west. Other than variations in vegetative cover, the area that is the current location of Building 47 remained unchanged until the 1993 aerial photograph. In this photograph, the ONFF is shown as being demolished, including the area of the current Building 47. The first appearance of Building 47 is in the 1997 aerial photograph, where it is shown in its current location. No changes to Building 47 are noted after 1997.

The Building 47 location is not within any of the areas of known or suspected historical release(s) that were the focus of a study of select, historical, NAS Brunswick aerial photographs dated 1940 to 1980 (U.S. EPA, 1987).

Historical ONFF remedial reports indicate Building 47 (referred to as the “Treatment Building”) was constructed in 1996 to house three air-sparge compressors for the ONFF remedial system; however, due to a high groundwater table, this system was reported as not operable as designed (EA, 1997, 2000, and 2004). A chronological listing of the remedial activities conducted at the ONFF and the associated uses of Building 47 is provided below:

- 1996: Installation of soil-vapor extraction (SVE)/air-sparging (AS) system for the remediation of the vadose and saturated zones, which were impacted by the ONFF POL Site groundwater contamination plume (Navy, 2006). Building 47 was constructed during this period to house the air-sparge blowers for the remedial system. This system was not operable as designed, due to a high groundwater table;
- August 1996 until 1998: A biosparging system installed and operated continuously, with only minor service interruptions for maintenance and repairs. The existing air-sparge blowers housed in Building 47 were utilized to provide air for sparging of the groundwater in the ONFF well field;
- 1998: The biosparging system was turned off for the purpose of making modifications to the existing SVE system. The system was redesigned and improved, for service as a bioslurping remedial system, which provided dual-phase extraction and separation of the dual-phase, allowing the SVE system to operate, despite the high groundwater table. The improvements included the installation of a 2,000-gallon, underground, moisture-knockout tank and a 5,000-pound, granular-activated-carbon (GAC) emission-treatment system, located outside of Building 47;
- March 1999 to July 1999: The bioslurping (dual-phase extraction system) operated during this period, until the vapor-phase GAC became saturated. A 2004 ONFF groundwater monitoring report indicates 600 pounds of petroleum hydrocarbons were adsorbed by the GAC emission-treatment system. The saturated GAC vessel was removed in 1999 for off-site disposal (EA, 2004). At that time, the Navy concluded that excavation of soils combined with natural attenuation was the best approach for continuing the remediation of the ONFF POL Site groundwater plume;

- 2006: Air-sparge equipment was removed from Building 47, prior to use by the NAS Brunswick Recreation Department.

The NASB Transformer Database lists no electrical transformers associated with Building 47 (PWD, 2009).

The NASB Master/Historical Aboveground and Underground Storage Tank Inventory lists no aboveground storage tanks (ASTs) or underground storage tanks (USTs) associated with Building 47 (Environmental Department, 2009).

No oil/water separators are listed for Building 47 on the NASB Revised Oil/Water Separator List (PWD, 2008b).

The NAS Brunswick wastewater system map indicates that a sewer line is located immediately west of Building 47 (Navy, 2006); however, no connections to the base-wide sanitary sewer system are documented. No sanitary facilities are present in the building and no septic systems were identified in the area.

No historical spills were recorded for Building 47, according to MEDEP and NAS Brunswick spill records (Environmental Department, 1988; Environmental Department 1999; and MEDEP, 2010).

4. SITE VISIT AND INVESTIGATION

A site visit was conducted on December 2, 2010 by Mr. Brandon Smith, P.E., Mr. Mark K. Speer, P.E., and Mr. James Forrelli, P.E., of Tetra Tech. The purpose of the site visit was to verify information gathered during the records search and to collect information as necessary to prepare this closure report. Tetra Tech personnel were accompanied by Mr. D. Bruce Smith, the NAS Brunswick Hazardous Waste Manager and Mr. Mark Verhey, the NAS Brunswick Recreational Director. The building was visually inspected for signs of hazardous waste generation or storage activity. Site visit observations, recorded on the attached Building Inspection Form[(1)], are summarized below:

- At the time of inspection, Building 47 was unoccupied and in good condition.
- No evidence of current or past hazardous waste generation was observed.
- No evidence of hazardous waste residues was observed.
- 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 floor drains were observed.
- No transformers that could be a potential source of PCB contamination were observed.
- Monitoring well WP-18 was observed immediately east of Building 47. The well cover was not bolted to the rim, and was without a locked expansion plug. Water was observed at grade within the well cover.
- Two radiators (air-to-air heat exchangers) were observed on the eastern side of Building 47. These units are connected to 3-inch-diameter PVC pipe entering the subsurface, but are not connected to piping entering the building. No residuals were observed in/on the equipment.
- One “flammable materials” locker was observed in the main room of Building 47; the locker was empty and was previously used to store lawnmower and snowblower lubricating oils and gasoline containers. No evidence of a release from containers stored within, or from the locker was observed.

Based on the records research findings and site visit observations, it was determined that neither further inspection nor sampling of Building 47 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, no hazardous waste generation, hazardous waste accumulation, or hazardous waste storage was conducted at Building 47, other than as noted in Section 3.

6. OTHER ENVIRONMENTAL CONSIDERATIONS

No tanks or transformers were historically associated with Building 47, and none were observed in the immediate vicinity of the building.

7. LIMITATIONS

This investigation of the hazardous waste closure requirement applies to the building footprint of Building 47 (building footprint as shown on Figures 2). It does not apply to the land surrounding or the groundwater underlying Building 47.

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 47 at NAS Brunswick, Maine. Therefore, the hazardous waste closure of Building 47 was completed in accordance with the provisions of MEDEP Regulations Chapter 851, Standards for Generators of Hazardous Waste, Section 11.

James R. Forrelli

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

STATE OF MAINE
JAMES R. FORRELLI
No. 8053
LICENSED
PROFESSIONAL ENGINEER

(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

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

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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.

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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.

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

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

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

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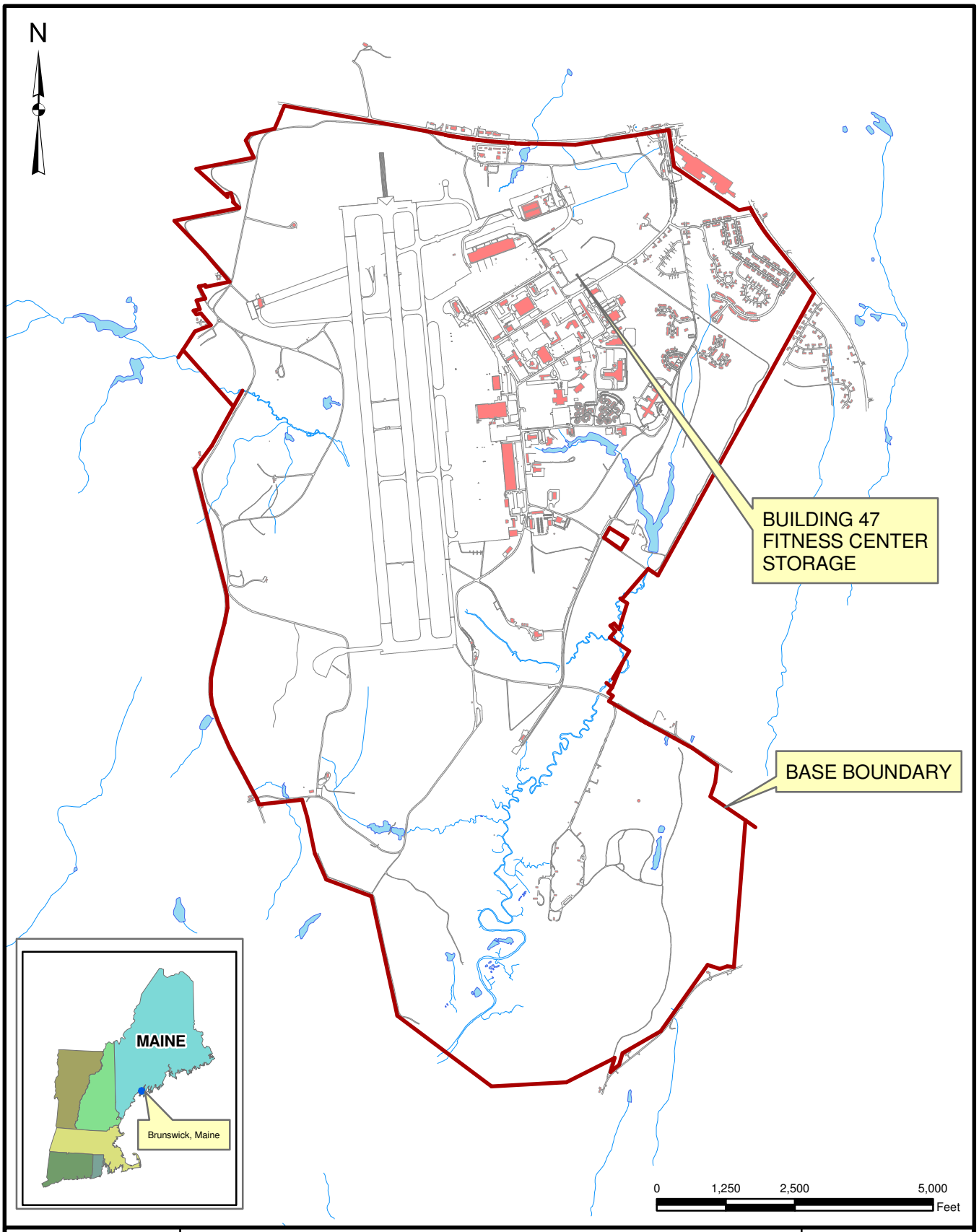
I:\02258\CP.DR\NASB_BLDG_47_LOCUS.MXD NEC 12/27/10

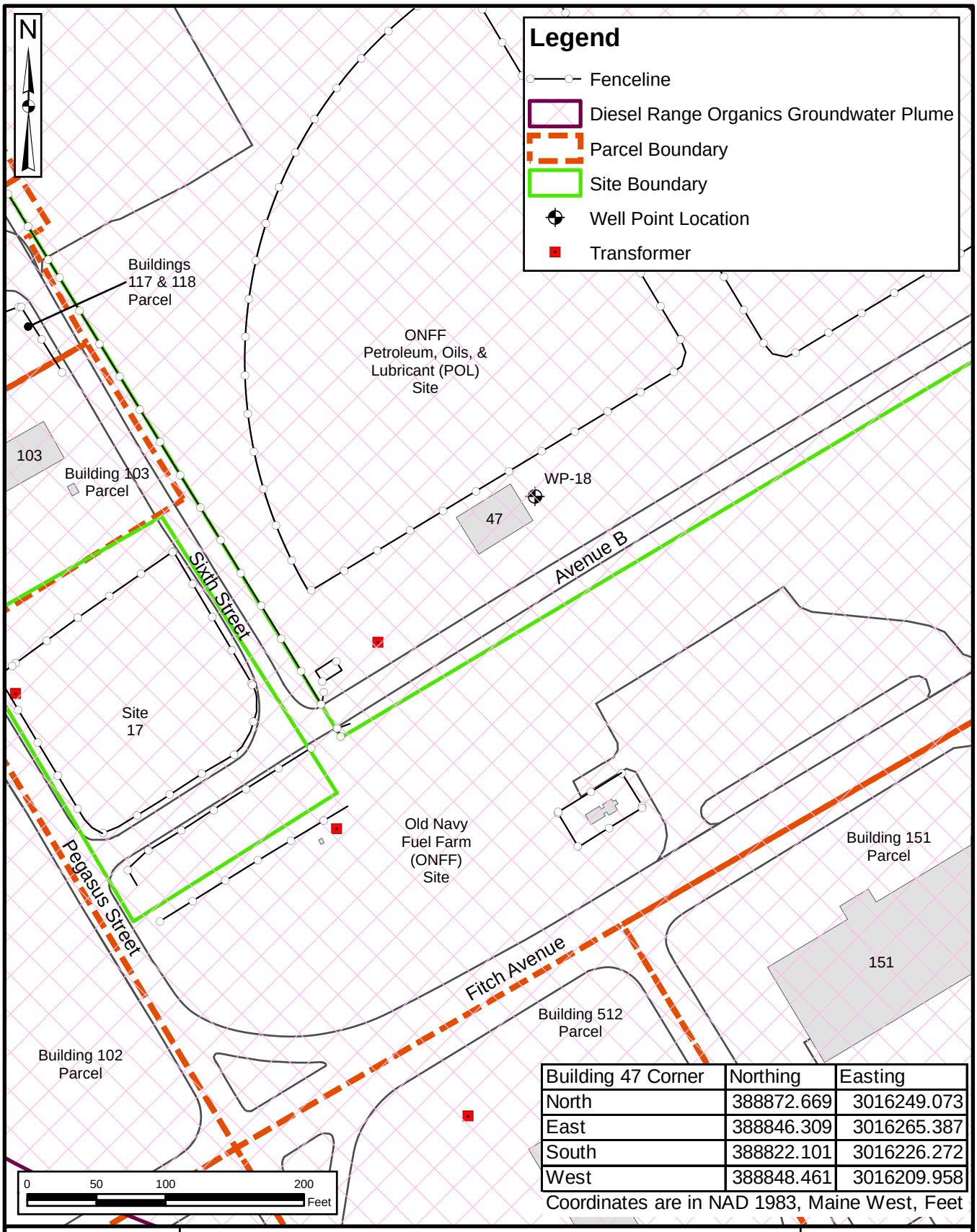


Tetra Tech NUS, Inc.

SITE LOCATION MAP
BUILDING 47 - FITNESS CENTER STORAGE
RCRA PARTIAL CLOSURE REPORT
NAVAL AIR STATION BRUNSWICK, MAINE

SCALE	AS NOTED
FILE	I:\..\NASB_BLDG_47_LOCUS.MXD
REV	0
DATE	12/27/10
FIGURE NUMBER	1

I:\02258\CP.DR\NASB_BLDG_47_SITE_MAP.MXD NEC/DWM 12/29/10



Building 47 Corner	Northing	Easting
North	388872.669	3016249.073
East	388846.309	3016265.387
South	388822.101	3016226.272
West	388848.461	3016209.958

Coordinates are in NAD 1983, Maine West, Feet

Tetra Tech NUS, Inc.

SITE PLAN

BUILDING 47 - FITNESS CENTER STORAGE

RCRA PARTIAL CLOSURE REPORT

NAVAL AIR STATION BRUNSWICK, MAINE

SCALE: AS NOTED

FILE: \..\NASB_BLDG_47_SITE_MAP.MXD

REV: 0 DATE: 12/29/10

FIGURE NUMBER: FIGURE NO. 2

BUILDING 47

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

Inspection Date: 12/2/10
Personnel: Brandon Smith, P.E. / James Forrelli, P.E. / Mark Speer, P.E.
Weather: Sunny, 40s

GENERAL BUILDING INFORMATION / USES

Building Name: Ball Field Storage

Function: Equipment Storage (Lawnmower)/Former Remedial Equipment Shed

Size: 1,350 SF

Year of Construction: 1996

Building 475 is located in the eastern-central portion of NASB Brunswick immediately south of the former Old Navy Fuel Farm (ONFF). Building 47 is bordered to the north and east, by ball fields (former ONFF); to the south, by Avenue B; and to the west, by 6th Street and IR Site 17 beyond. Construction date of Building 25 is noted as 1997, for the ONFF remedial equipment shed; and has served as the ball field lawn mower and snow blower storage since 2005, when the remedial system was deactivated and the equipment was removed.

Building 47 is a one story; steel framed, and sheathed structure on a concrete pad. The structure has a metal roof. No floor drains were observed within the structure. No hazardous materials were used in Building 47's operation and no hazardous waste was generated, according to NAS Brunswick personnel. Building 47 is heated via a ceiling-mounted explosion-proof electric space heater. The facility is not supplied with air conditioning.

HWSA INSPECTION / CONDITION

At the time of inspection, Building 47 was vacant and in good condition. 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, etc.) were observed. Minor staining was observed on the floor. No modifications to the structure, which may conceal signs of a past release, were observed.

All surface coatings appeared to be in good condition, with no chipping or peeling of paint observed.

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

One unmarked groundwater well was observed immediately east of Building 47 (Well Point No. WP-18). The cover to this well was unsecure and was without a well expansion plug, with surface water runoff observed at grade within the well.

Two heat exchanger units, connected to 3-inch diameter PVC pipes entering the subsurface, were observed immediately east of Building 47. These exchangers were part of the former remedial system installed at the ONFF.

POTENTIAL PCB-CONTAINING TRANSFORMERS

No transformer that could be a potential source of polychlorinated biphenyls (PCBs) contamination in the event of a leak was observed.

APPLICABLE REPORTS / DOCUMENTS

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

1943 map – None present, area is located on southern side of Old navy Fuel Farm (ONFF).
1946 map – Same as 1943 map; however, the fuel farm is shown expanded to include jet fuel storage, east of existing gasoline storage area.
1950 building list – Building 47 (Chapel) is listed, not current structure and not in current location.
1952 map – Same as 1946 map.
1953 aerial – Undetermined, photo lacks sufficient clarity/detail in current building 47 area to make a determination.
1956 map – Same as 1946 map.
1957 map – Same as 1946 map.
1958 aerial –None present; Building 95 observed west of 6th Street (unpaved).
1965 building list – Not listed.
1975 map – Same as 1946 map.
1976 building list – Same as 1965 list.
1978 map – Same as 1946 map.
1978 aerial – Same as 1958 aerial.
1979 map – Same as 1946 map.
1981 aerial – Same as 1958 aerial.
1984 aerial – Same as 1958 aerial.
1989 map – None, map lacks sufficient detail in current building 47 area.
1989 aerial – Same as 1958 aerial.
1993 aerial – None; ONFF appears to be in the process of being demolished/razed.
1997 aerial – Building 47.
2003 building list – Building 47, ball Field Storage (1997) is listed.
2006 map – Building 47 is present.
2008 building list – Same as 2003 list.

Current Google aerial – Current site configuration.

According to NASB records, no underground storage tanks (USTs), above ground storage tanks (ASTs), or oil-water separators (OWS) were registered to Building 47.

HAZARDOUS WASTE STORAGE RECORDS

No hazardous waste was historically stored at Building 47 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, and Mr. Mark Verhey Recreational Director.

INSPECTOR SIGNATURE: Mark L. Speer

PHOTOGRAPHS

No. 1 Building 47 – Fitness Center Storage, NAS Brunswick December 2, 2010
Fitness Center Storage southeast elevation (main entrance)

No. 2 Building 47 – Fitness Center Storage, NAS Brunswick December 2, 2010
Fitness Center Storage northeast elevation; well point (WP-18) in foreground, and two air-to-air heat exchangers for former ONFF POL Site treatment system at building exterior

No. 3 Building 47 – Fitness Center Storage, NAS Brunswick December 2, 2010
Fitness Center Storage north interior area of storage room

No. 4 Building 47 – Fitness Center Storage, NAS Brunswick December 2, 2010
Fitness Center Storage west interior area of storage room