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NAS BRUNSWICK
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FINAL RESOURCE CONSERVATION AND RECOVERY ACT PARTIAL CLOSURE REPORT
FOR BUILDING 111 WITH TRANSMITTAL LETTER NAS BRUNSWICK ME
11/5/2010
NAS BRUNSWICK

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

November 5, 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

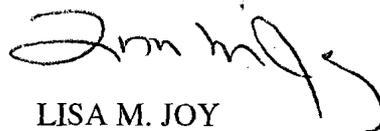
Subj: Final RCRA Partial Closure Report for Building 111

Dear Mr. Vigneault:

A copy of the Final RCRA Partial Closure Report for Building 111 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 111

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 111 – PUBLIC WORKS SEWAGE PUMP HOUSE
NAVAL AIR STATION BRUNSWICK, MAINE
USEPA IDENTIFICATION NUMBER ME8170022018
OCTOBER 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 111 at Naval Air Station Brunswick (NAS Brunswick).

2. PROPERTY DESCRIPTION

Building 111 is located in the northeast area of NAS Brunswick (Figure 1), immediately south of Buildings 110, 1143 and 1144, which are located on the southern side of Fitch Avenue and east of First Street (Figure 2). It is surrounded by grass-covered and forested NAS Brunswick grounds, north and south respectively, sloping northwest to southeast toward the P3 Circle recreational vehicle parking area..

Building 111 consists of an in-ground sewage pump station and a small, aboveground instrumentation shed housing metering and electronic signaling equipment for, and constructed above, the pump station. The one-room, un-heated shed has an area of 64 square feet and features concrete-block and wooden siding construction on a concrete pad above the reinforced-concrete wet well structure. The pump is contained in the in-ground reinforced concrete structure, which is accessible by a steel access door in the shed's concrete pad floor. NAS Brunswick documentation indicates that the pump station was constructed in 1943. The pump station collects sanitary wastewater flow from two residences, Buildings 1143 and 1144 (formerly known as Quarters A and B), and is part of the NAS Brunswick sanitary wastewater collection system, which discharges to the Brunswick Sewer District. Photographs of the building are provided as an attachment to this report.

The Navy Lands/Private Housing Area RCRA Partial Closure Report addresses the land surrounding and the groundwater underlying Building 111.

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 111, including past use and operations at these locations.

Records reviewed include historical aerial photographs, the NAS Brunswick Other Environmental Liabilities (OEL) Database, area-specific reports, facility plans, facility 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, 1989, and 2006 (PWD, 1943, 1946, 1952, 1956, 1975, 1989, and 2006) and site building lists for 1965, 1976, 2003, and 2008 (PWD, 1965, 1976, 2003, and 2008) were also reviewed.

According to NAS Brunswick Environmental Department personnel, Building 111 has been used as sanitary sewer pump station since initial construction. There is no record of hazardous waste generation or accumulation at Building 111.

According to the 2008 building list, Building 111 was constructed in 1943, at the time of the sanitary sewer pipe installation in this area of NAS Brunswick. Building 111 is not present on the 1943 base map; however, Buildings 110 (garage), 1143 and 1144 are shown. Both Building 111 and Buildings 110, 1143 and 1144 are shown on the 1946 base map. In the 1978 aerial photograph, Building 111 appears at its current location. Due to the low resolution of the aerial photographs, Building 111 could not be identified in the 1953, 1958, 1993 or 1997 aerial photographs. Building 111 is shown on the 2006 base map.

The NAS Brunswick Transformer Database lists no electrical transformers for Building 111 (PWD, 2009). The NAS Brunswick Master/Historical Aboveground and Underground Storage Tank Inventory lists no aboveground storage tanks (ASTs) or underground storage tanks (USTs) for Building 277 (Environmental Department, 2009). No oil/water separators are listed for Building 277 on the NAS Brunswick Revised Oil/Water Separator List (PWD, 2008b).

4. SITE VISIT AND INVESTIGATION

Site visits were conducted on September 9, 2010 by Mr. James Forrelli, P.E., Mr. Brian Geringer and Mr. Mark K. Speer, P.E. and on September 16, 2010 by Mr. Geringer and Mr. Speer of Tetra Tech. The visits included the areas of Building 111. The purpose of the site visits 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. Building 111 was visually inspected for signs of hazardous waste generation or storage. Site visit observations, recorded on the attached Building Inspection Form⁽¹⁾, are summarized below:

- At the time of the site visits, Building 111 was unoccupied, in good condition, and was operational.
- The pump station wet well access cover was not opened to observe the wet well; however, no solvent or petroleum odors were noted as being emitted from the wet well passive vent pipe.
- 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 peeling or flaking paint was observed on the building exterior or interior.
- A small, unused concrete pad was observed approximately 30 feet east of Building 111. Although the concrete pad was discolored, no surface soil staining was observed in the vicinity.
- No emergency generator was observed at the Building 111 location. No ASTs, USTs, or oil/water separators associated with Building 111 were observed.

The unused concrete pad near Building 111 may have been a mounting platform for a transformer. Due to the 1943 construction date of the pump station, it is possible that a previously pad-mounted transformer contained PCB oil. To evaluate the concrete pad area for an historical PCB release, soil samples were collected from each side of the concrete pad (Figure 3) on September 16, 2010. The samples were collected using hand-auger methods, and were from locations immediately adjacent to the sides of concrete pad. Samples were collected from 0 to 6 and 6 to 24 inches below ground surface (bgs) at each location.

The soil samples were submitted for PCB analysis by Tetra Tech's subcontracted analytical laboratory (Analytics Environmental Laboratory, Portsmouth, New Hampshire). The resulting analytical data underwent limited data validation, blank contamination evaluation, and completeness evaluation. As presented in Table 1, PCB was not detected in the soil samples collected adjacent to the concrete pad near Building 111.

Based on the records research findings and site visit observations, it was determined that neither further inspection nor sampling of Building 111 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 111.

6. OTHER ENVIRONMENTAL CONSIDERATIONS

No USTs or ASTs were observed in the immediate vicinity of Building 111.

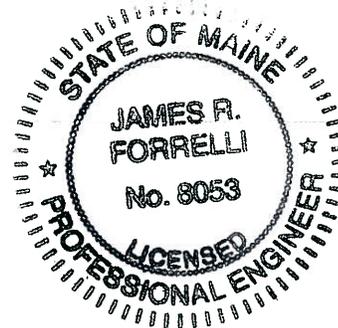
7. LIMITATIONS

This investigation of the hazardous waste closure requirement applies to the building footprint of Building 111 (building footprint as shown on Figure 2). It does not apply to the land surrounding or the groundwater underlying Building 111.

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 111 at NAS Brunswick, Maine. Therefore, the hazardous waste closure of Building 111 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.



⁽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 not 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

DTM (Distribution Transformer Manufacturers), 2006. "Distribution Transformer Manufacturers and Available Polychlorinated Biphenyl Information". Elizabethton Electric System, Updated January.

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

PWD (Public Works Department), 1943. "US Naval Air Station, Brunswick, Maine, Building Site Plan Showing Locations of Underground Water Distribution Lines and Hydrants," 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, 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, NAS Brunswick, Maine. Updated December 2.

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

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

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, Maine. 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. May 27.

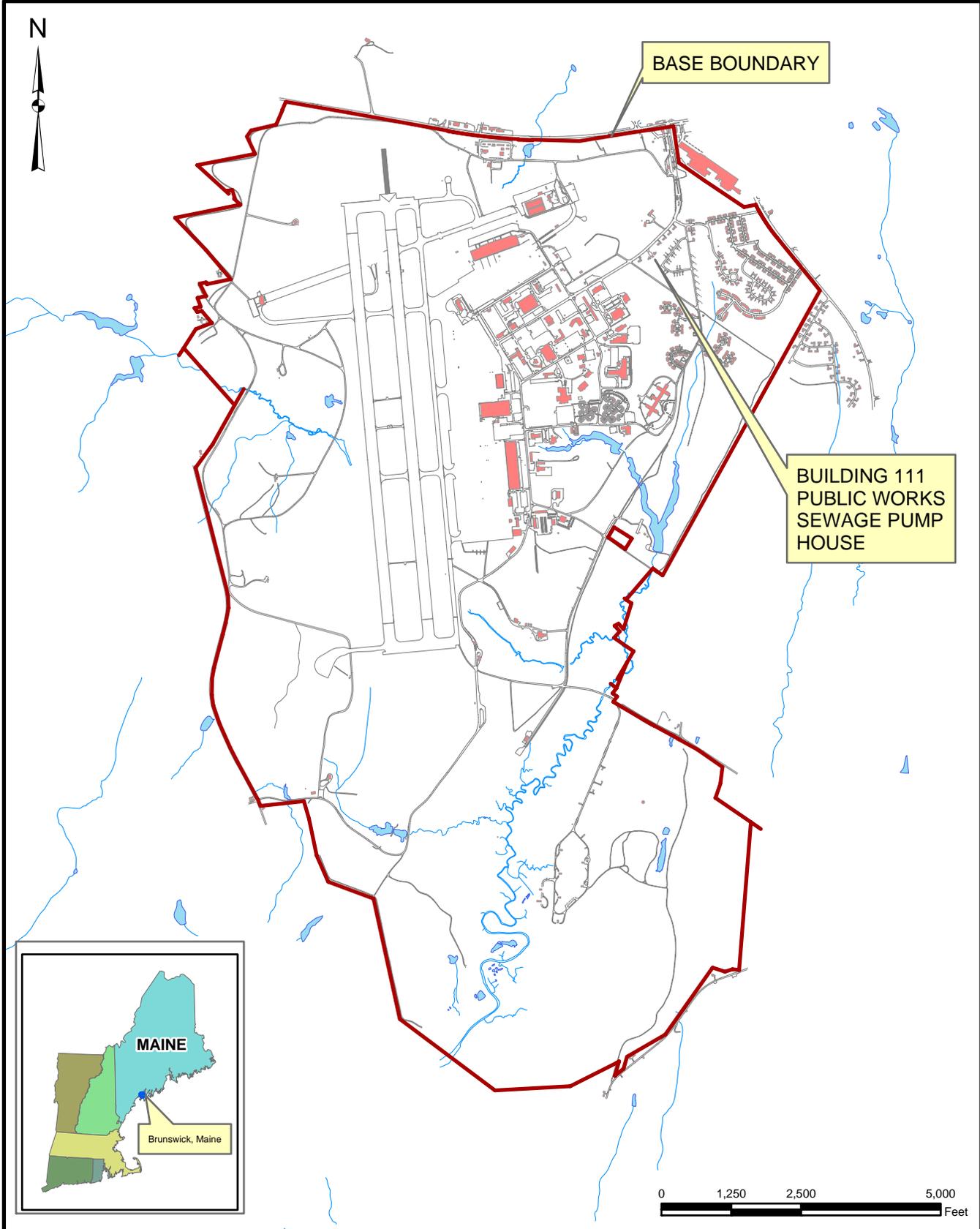
U.S. Environmental Protection Agency (EPA), 2010. Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites. <http://www.epa.gov/region9/superfund/prg/>. May.

**TABLE 1
SOIL SAMPLE PCB RESULTS
RCRA PARTIAL CLOSURE REPORT
BUILDING 111 – PUBLIC WORKS SEWAGE PUMP HOUSE
NAVAL AIR STATION BRUNSWICK, MAINE**

SAMPLE ID ⁽¹⁾	EPA RSLs ⁽²⁾ (µg/kg)	MEDEP Action Limit ⁽³⁾ (µg/kg)	B111- SB01- 0006	B111- SB01- 0624	B111- SB02- 0006	B111- SB02- 0624	B111- SB03- 0006	B111- SB03- 0624	B111- SB04- 0006	B111- SB04-0006 (duplicate)	B111- SB04- 0624	
LOCATION			north side concrete pad	north side concrete pad	east side concrete pad	east side concrete pad	south side concrete pad	south side concrete pad	west side concrete pad	west side concrete pad	west side concrete pad	
MATRIX			soil	soil	soil	soil	soil	soil	soil	soil	soil	
DEPTH (inches bgs)			0-6	6-24	0-6	6-24	0-6	6-24	0-6	0-6	0-6	6-24
SAMPLE DATE			09/16/10	09/16/10	09/16/10	09/16/10	09/16/10	09/16/10	09/16/10	09/16/10	09/16/10	09/16/10
PCB (µg/kg)												
Aroclor-1016	3,900		16.5 U	16.5 U	18 U	16.5 U	16.5 U	16.5 U	18 U	16.5 U	18 U	
Aroclor-1221	140		16.5 U	16.5 U	18 U	16.5 U	16.5 U	16.5 U	18 U	16.5 U	18 U	
Aroclor-1232	140		16.5 U	16.5 U	18 U	16.5 U	16.5 U	16.5 U	18 U	16.5 U	18 U	
Aroclor-1242	220		16.5 U	16.5 U	18 U	16.5 U	16.5 U	16.5 U	18 U	16.5 U	18 U	
Aroclor-1248	220		16.5 U	16.5 U	18 U	16.5 U	16.5 U	16.5 U	18 U	16.5 U	18 U	
Aroclor-1254	220		16.5 U	16.5 U	18 U	16.5 U	16.5 U	16.5 U	18 U	16.5 U	18 U	
Aroclor-1260	220		16.5 U	16.5 U	18 U	16.5 U	16.5 U	16.5 U	18 U	16.5 U	18 U	
Total PCBs		1,000	16.5 U	16.5 U	18 U	16.5 U	16.5 U	16.5 U	18 U	16.5 U	18 U	

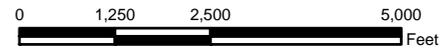
Notes:

- (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)
- PCB polychlorinated biphenyl



BASE BOUNDARY

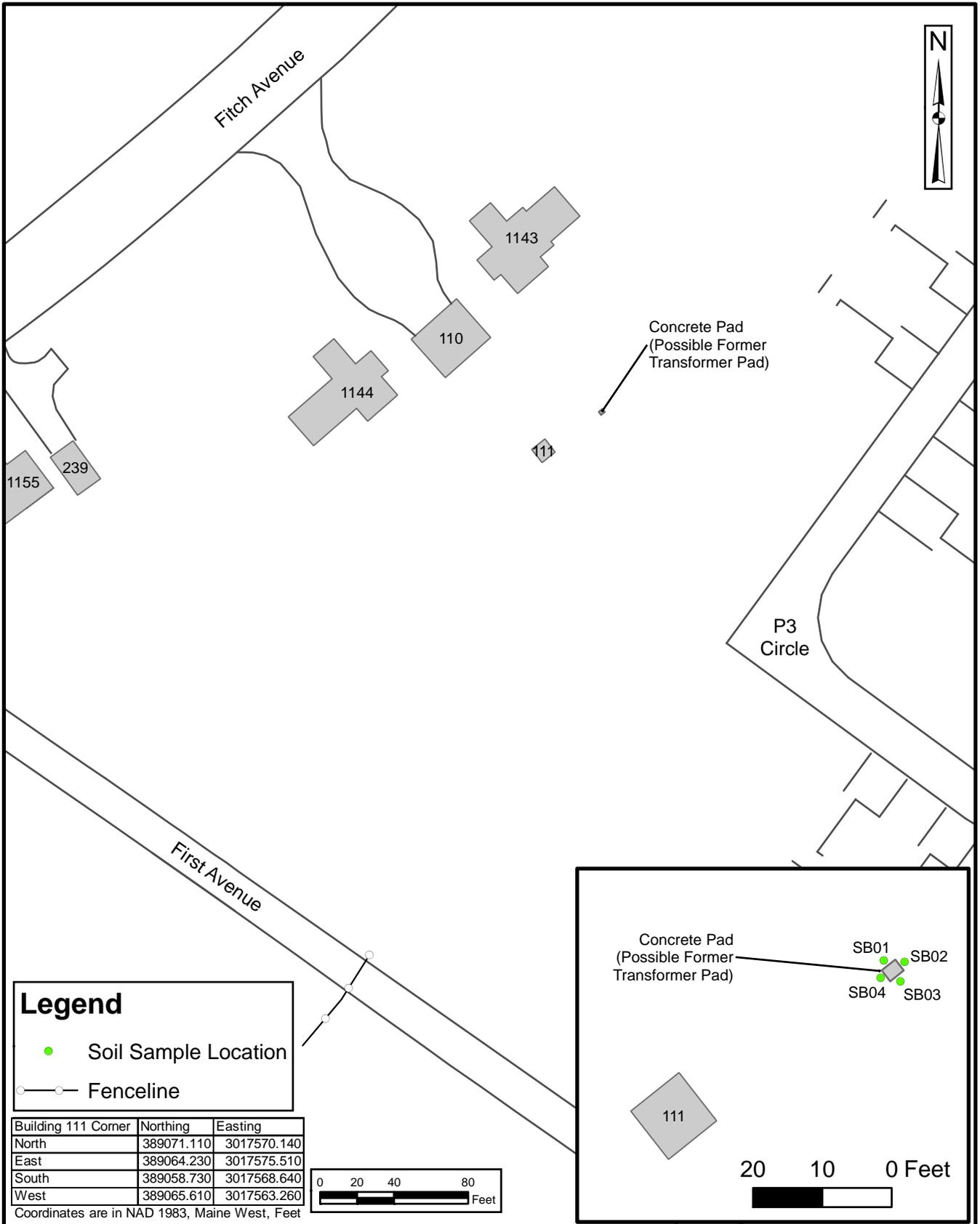
BUILDING 111
PUBLIC WORKS
SEWAGE PUMP
HOUSE



Tetra Tech NUS, Inc.

SITE LOCATION MAP
 BUILDING 111- PUBLIC WORKS SEWAGE PUMP HOUSE
 RCRA PARTIAL CLOSURE REPORT
 NAVAL AIR STATION BRUNSWICK, MAINE

SCALE AS NOTED	
FILE I:\WASB_BLDG_111_LOCUS.MXD	
REV 0	DATE 10/21/10
FIGURE NUMBER 1	



Tetra Tech NUS, Inc.

SITE PLAN
BUILDING 111 - PUBLIC WORKS SEWAGE PUMP HOUSE
RCRA PARTIAL CLOSURE REPORT
NAVAL AIR STATION BRUNSWICK, MAINE

SCALE AS NOTED	
FILE L:\NASB_BLDG_111_SITE_MAP.MXD	
REV 0	DATE 10/21/10
FIGURE NUMBER 2	

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

Inspection Date: 9/9/10

Personnel: Brian Geringer /James Forreli, P.E. / Mark Speer, P.E.

Weather: Partly Sunny, 70s

GENERAL BUILDING INFORMATION / USES

Building Name: Public Works Bld 111 (Sewage Pump House)

Function: Sanitary Sewer Lift Station

Size: 64 SF

Year of Construction: 1943

Building 111 is located in the northeast portion of the former air station; immediately south of the shared garage for naval officer homes, Buildings A and B, located south of Fitch Avenue and east of First Street. Construction date of Building 111 is noted as 1943, and has served as a sanitary sewer lift station for its entire history.

Building 111 is a one-story, one-room; wood-framed and sheathed structure located above a sanitary sewer in-ground pump station. No hazardous materials were used in its operation and no hazardous waste was generated here, according to NAS Brunswick personnel. Building 111 is unheated.

HWSA INSPECTION / CONDITION

At the time of inspection, Building 111 was in use and in good condition. This pump station is not manned.

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. 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.

No peeling/chipping paint was observed, and there are no windows in the structure.

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. Additionally, there are no transformers reported as associated with Building 111 on the NAS Brunswick transformer List; however, a concrete pad of unknown origin was observed located 30 feet (approximately) east of Building 111.

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

APPLICABLE REPORTS / DOCUMENTS

Available historical aerial photos and base maps were reviewed for past uses:
1943 map – None present, residential homes (Buildings A and B) and shared garage observed.
1946 map – Building 111 (Sewage Pump House) is present.
1950 building list – None listed.
1952 map – Same as 1946 map.
1953 aerial – Undetermined due to lack of photo clarity; although the sanitary sewer “force main” trench/excavation area was observed.
1956 map – Building 111 (Public Works Sewage Pump House) is present.
1957 map – Same as 1956 map.
1958 aerial – Undetermined due to tree foliage and associated shadows.
1965 building list – 111 Pump House, Sewage.
1975 map – Same as 1956 map.
1976 building list – Same as 1965 list.
1978 map – Undetermined, map lacks sufficient detail in area of current Building 111 footprint.
1978 aerial – Building 111.
1979 map – Same as 1956 map.
1981 aerial – Same as 1978 aerial.
1984 aerial – Same as 1978 aerial.
1989 map – Undetermined, map lacks sufficient detail in area of current Building 111 footprint.
1989 aerial – Same as 1978 aerial.
1993 aerial – Undetermined due to tree foliage and associated shadows.
1997 aerial – Undetermined due to tree foliage and associated shadows.
2003 building list – Building 111, Sewage Pump House (constructed in 1943), is listed.
2006 map – Building 111 is present.
2008 building list – Same as 2003 list.
Current Google aerial – Undetermined due to tree foliage and associated shadows.

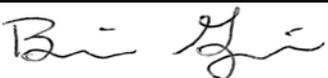
According to NASB records, No underground storage tanks (USTs), above ground storage tanks (ASTs), or oil-water separators (OWS) were registered to Building 111.

HAZARDOUS WASTE STORAGE RECORDS

No hazardous waste was historically stored at Building 111 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.

INSPECTOR SIGNATURE:  _____

PHOTOGRAPHS



No. 1 Building 111 – NAS Brunswick
Building 111 northeast elevation; entrance on east side

September 9, 2010



No. 2 Building 111 – NAS Brunswick
Building 111 southwest elevation; in-ground pump station PVC vent pipe exiting from south side

September 9, 2010



No. 3 Buildings 111 – NAS Brunswick
 Building 111 interior; access to in-ground pump station in floor and PVC vent pipe

September 9, 2010



No. 4 Buildings 111 – NAS Brunswick
 Building 111 interior; electric, alarm panels, and system on/off panels mounted on north wall

September 9, 2010



No. 5 Buildings 111 – NAS Brunswick
Possible former transformer pad, approximately 30 feet east of Building 111

September 9, 2010