

N60087.AR.002191
NAS BRUNSWICK
5090.3a

FINAL RESOURCE CONSERVATION AND RECOVERY ACT PARTIAL CLOSURE REPORT
FOR BUILDING 594 AIR OPERATIONS RADAR TOWER NAS BRUNSWICK ME
3/1/2010
TETRA TECH NUS

RCRA PARTIAL CLOSURE REPORT
for
BUILDING 594 – AIR OPERATIONS RADAR TOWER
NAVAL AIR STATION BRUNSWICK, MAINE
USEPA IDENTIFICATION NUMBER ME8170022018
MARCH 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 594, at Naval Air Station Brunswick (NAS Brunswick).

2. PROPERTY DESCRIPTION

Building 594, known as the Air Operations Radar Tower, is a former US Air Force radar tower building currently being used as a boiler room and for storage space. It is located on Beasley Circle, north of Building 87 (Anti-Submarine Warfare Operations Center [ASWOC] building) inside the Command Patrol and Reconnaissance Wing Five (CPRW-5) compound at NAS Brunswick (see Figure 1). It was constructed in 1950 and consists of a 900-square foot, two-story, steel frame building with steel-panel covering on a concrete slab foundation.

Building 594 contains a boiler room on the first floor containing floor generators and two boilers for Building 87. An external, enclosed stairway leads to the second floor where radar equipment, as well as gear storage, was previous located. Currently the second floor is vacant. Building 594 was originally heated via the base's central steam plant, then converted to a fuel-oil fired heating system, and is currently heated via a natural-gas heating system. A site plan is attached (see Figure 2). Photographs of the facility are provided as an attachment to this report.

3. PROPERTY HISTORY AND RECORDS RESEARCH

The Tetra Tech NUS, Inc. (TtNUS) 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 594, including past use and operations at those locations.

According to NAS Brunswick Environmental Department personnel, from its construction in 1950 until the late 1960s, Building 594 was used as an Air Force radar tower. It was then converted to a boiler room for the CPRW-5 compound, and to storage space on the second floor, including storage of gear for the Fleet Aviation Specialized Operational Training Group Atlantic (FASOTRAGRULANT). There is no record of hazardous waste operations at Building 594.

Records reviewed include: historical aerial photographs; the NAS Brunswick Other Environmental Liabilities (OEL) Database; area-specific reports; facility plans and drawings; and hazardous operation records. Aerial photographs dated 1958, 1978, 1984, and 1989 (all produced by James W. Sewall Company) were reviewed along with Public Works Department site base maps dated 1946, 1952, 1956, 1962, 1983, 1989, and 2006 to provide historical information.

The CPRW-5 compound, identified as Air Force Operations, is present in aerial photographs and plans from 1946 until 1962, with Building 594 shown starting with the 1956 plan. In 1958, three similar tower structures and Building 87 (ASWOC communications building) are present to the north of Building 594. In 1983, only one of the three other tower structures and an unidentified building are present along with Building 594. All buildings except Building 594 were demolished prior to the 1989 aerial photograph and the current roadways, parking area and Building 87 are present in the current configuration.

According to the NAS Brunswick transformer database, no transformers are associated with Building 594.

Two USTs were previously located at Building 594. A 6,000 gallon, fiberglass-reinforced-plastic (FRP) No. 2 fuel oil UST (10045-069) was installed in March 1986 and removed in July 1992. This UST was replaced by a 3,000-gallon, No. 2 fuel oil UST (10045-490) in September 1992, which was removed in July 1999 and replaced by an AST.

Currently there are two ASTs located to the north of Building 594. These include a closed 4,000-gallon, double-walled No. 1 fuel oil AST (A594.1) that replaced UST 10045-490 in July 1999. It was closed on April 4, 2008. The second AST is a 4,000 gallon diesel unit (A594.0) installed adjacent to AST 594.1 in 1996. It provides diesel fuel to the generators in the boiler room on the first floor of Building 594.

4. SITE VISIT AND INVESTIGATION

A Building 594 site visit was conducted by Mr. Brandon Smith, P.E. and Mr. James Forrelli, P.E. of TtNUS on February 9, 2010. 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. TtNUS personnel were accompanied by Mr. D. Bruce Smith, the NAS Brunswick Hazardous Waste Manager. The Building 594 location 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 594 was in fair condition. Four generators, two boilers, and associated piping and mechanical equipment were present inside the first floor. The second floor was vacant.
- 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, 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.
- Only one transformer was observed in the vicinity of Building 594; this transformer, located south of Building 594, is associated with Building 87.

Based on the records research findings and site visit observations, it was determined that neither further inspection nor sampling of Building 594 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 activity or hazardous waste accumulation or storage activity was conducted at Building 594.

6. OTHER ENVIRONMENTAL CONSIDERATIONS

No underground storage tanks or above ground storage tanks, except the two ASTs described in Section 3, were observed in the immediate vicinity of Building 594.

7. LIMITATIONS

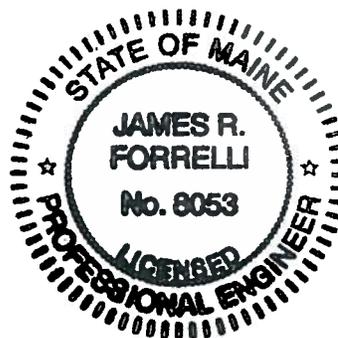
This investigation of the hazardous waste closure requirement applies to the Building 594 footprint (as shown on Figure 2) only. It does not apply to the land surrounding or the groundwater underlying Building 594.

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 594, NAS Brunswick, Maine. Therefore, the hazardous waste closure of Building 594 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 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

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

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

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

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

Master/Historical Underground Storage Tank Inventory. NAS Brunswick, Maine. 02/05/96.

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

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

Public Works Department, 1956. General Station Map, Enclosure 2. , NAS Brunswick, Maine. 1956.

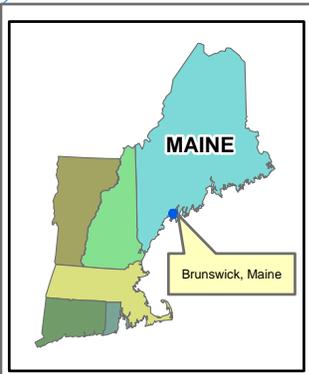
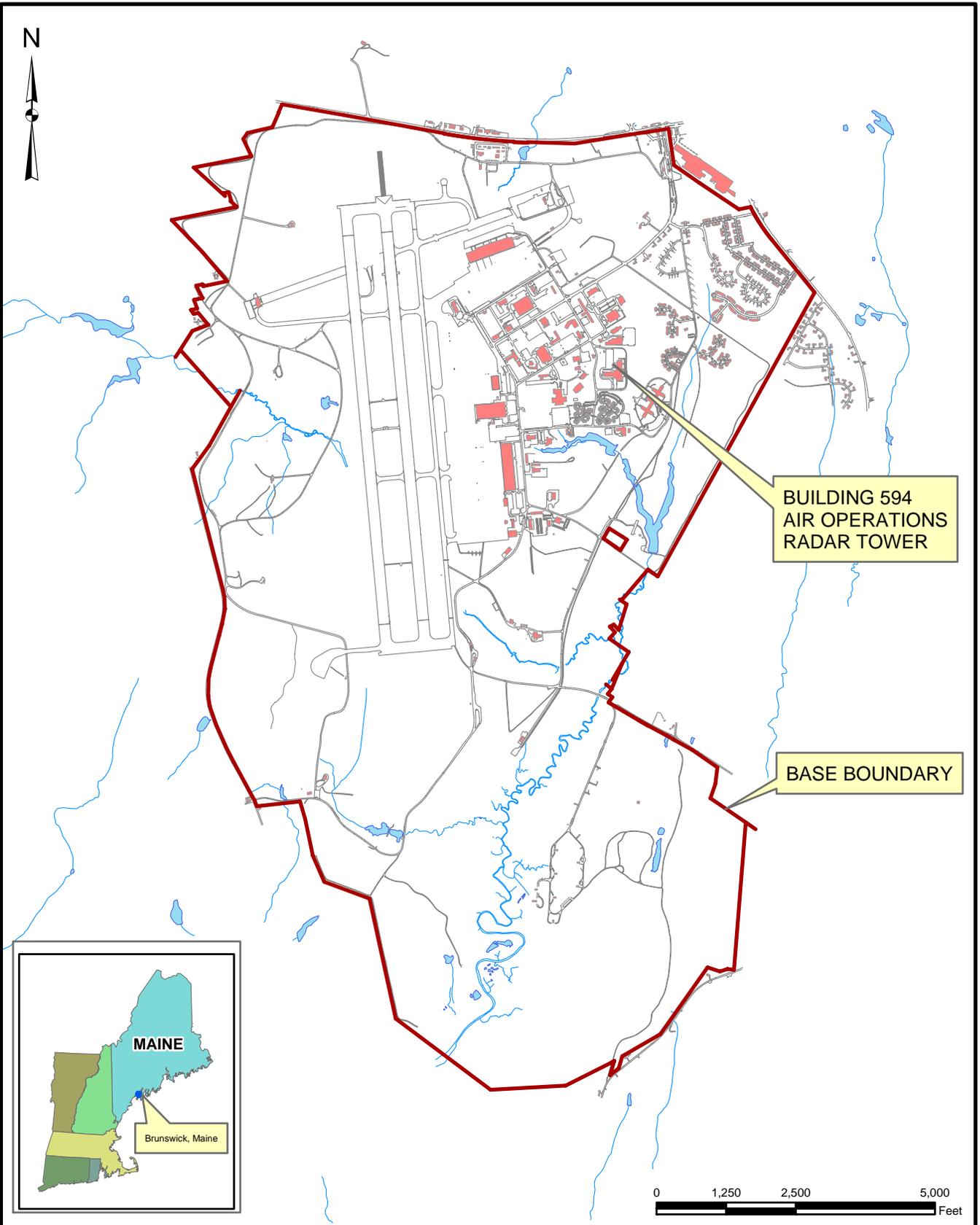
Public Works Department, 1962. "Map of Streets," US Naval Air Station, Brunswick, Maine, NAS Brunswick, Maine. 1962.

Public Works Department, 1983. "Existing Conditions Map. Public Works Department Drawing No. 2157" NAS Brunswick, Maine. May 5, 1983.

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

Public Works Department, 2006. Brunswick Naval Air Station, NAS Brunswick, Maine. 2006.

Public Works Department. 2010. Transformer Database. NAS Brunswick, Maine. 2010.



Tetra Tech NUS, Inc.

SITE LOCATION MAP
 BUILDING 594 - AIR OPERATIONS RADAR TOWER
 RCRA PARTIAL CLOSURE REPORT
 NAVAL AIR STATION BRUNSWICK, MAINE

SCALE AS NOTED	
FILE I:\NASB_BLDG_594_LOCUS.MXD	
REV 0	DATE 03/10/10
FIGURE NUMBER 1	



Tetra Tech NUS, Inc.

SITE PLAN
BUILDING 594 - AIR OPERATIONS RADAR TOWER
RCRA PARTIAL CLOSURE REPORT
NAS BRUNSWICK, MAINE

SCALE
AS NOTED

FILE
I:\NASB_BLDG_295_ORTHO.MXD

REV	DATE
0	02/03/10

FIGURE NUMBER
2

**BUILDING INSPECTION FORM
RCRA PARTIAL CLOSURE PROGRAM
NAS BRUNSWICK
BRUNSWICK, MAINE
CTO WE22**

Inspection Date: 2/9/2010
Personnel: James Forrelli, P.E. / Brandon Smith, P.E.
Weather: Clear, 20s

GENERAL BUILDING INFORMATION / USES	
Building Name:	Air Operations Radar Tower
Function:	Radar Tower / Boiler house and storage
Size:	900 SF
Year of Construction:	1950
<p>Building 594 is located on Beasley Circle north of Building 87 (ASWOC building) inside the CPRW-5 compound at NAS Brunswick. It was constructed in 1950 originally as a radar tower for the Air Force and was converted in the late 1960s to a boiler house and was also used for storage. Building 594 consists of a 900 square-foot, two level steel paneled structure on concrete slab foundation.</p> <p>Building 594 was originally a radar tower and converted into a boiler house for Building 87 and also used as storage for FASO. Building 594 contains a boiler room on the first floor containing four generators and boilers for Building 87. An external enclosed stairway leads to the second floor where radar equipment, as well as gear storage, was previous located. Currently the second floor is vacant.</p> <p>No hazardous waste was generated during the operations in Building 594, according to NASB personnel.</p> <p>Building 594 was originally heated via steam, then converted to fuel oil, and finally natural gas.</p>	
BUILDING INSPECTION / CONDITION	
<p>No record of hazardous waste stored at Building 594.</p> <p>The building was not occupied at the time of the site visit and appeared in fair 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. No transformers that could be a potential source of polychlorinated biphenyls (PCBs) contamination in the event of a leak were observed.</p>	
HAZARDOUS WASTE STORED / GENERATED	
<p>No hazardous waste was stored or generated at Building 594, according to NASB personnel.</p>	
POTENTIAL PCB-CONTAINING TRANSFORMERS	
<p>No potential PCB-containing transformers were identified during the site inspection or review of the NASB transformer database.</p>	

APPLICABLE REPORTS / DOCUMENTS

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

1946 plan - CPRW5 compound present; labeled as "Operations (AF)". 594 not present.

1952 plan - Same as 1946

1956 plan - Building 594 shown; compound labeled "USAF".

1958 aerial - Building 594 present, along with 3 similar tower structures and building 596 to the north.

1962 plan - Building 596 (ASWOC communications) present to the north of 594.

1978 aerial - same as 1958 aerial.

1983 plan - Only 594 and unidentified building to the south are shown in compound.

1984 aerial - Only 1 of the 3 other tower structures is still present.

1989 plan - same as 1983 plan.

1989 aerial - All buildings except 594 were demolished since 1984 aerial. New roads and parking area, and Building 87 present.

1993 aerial - same as 1989 aerial

2006 plan - Same as 1989 plan, with Building 43 (Telephone Exchange) shown at the compound entrance.

Two USTs were previously located at Building 594. A 6,000 gallon fiberglass reinforced plastic (FRP) #2 fuel oil UST (10045-069) was installed in March 1986 and removed in July 1992.

This UST was replaced by a 3,000 gallon #2 fuel oil UST (10045-490) in September 1992. It was removed in July 1999 and replaced by an AST.

Currently there are two ASTs located to the north of Building 594. a 4,000-gallon double-walled #1 fuel oil AST (A594.1) replaced UST 10045-490 in July 1999. It was closed on 04/23/08. A 4,000 gallon diesel AST (A594.0) is located adjacent to AST 594.1 and was installed in 1996. It provides diesel to the generators in the boiler room on the first floor of Building 594.

HAZARDOUS WASTE STORAGE RECORDS

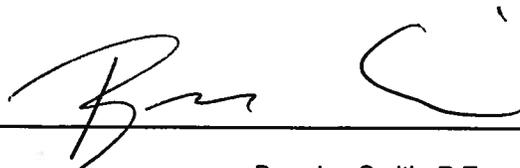
No hazardous waste was historically stored at Building 594, according to NAS Brunswick Hazardous Waste Manager, D. Bruce Smith.

MISCELLANEOUS NOTES

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

(SEE ATTACHED BUILDING FLOOR PLAN AND PHOTOGRAPHS)

INSPECTOR SIGNATURE:



Brandon Smith, P.E.

PHOTOGRAPHS



No. 1 Building 594 – NAS Brunswick
Building 594 – Air Operations Radar Tower southwest exterior.

February 9, 2010



No. 2 Building 594 – NAS Brunswick
Building 594 – Air Operations Radar Tower first floor interior.

February 9, 2010