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NAS BRUNSWICK
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FINAL RESOURCE CONSERVATION AND RECOVERY ACT PARTIAL CLOSURE REPORT
FOR BUILDING 32 PETROLEUM, OIL AND LUBRICANTS OFFICE NAS BRUNSWICK ME
3/1/2010
TETRA TECH NUS

RCRA PARTIAL CLOSURE REPORT
for
BUILDING 32–POL OFFICE
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 32, at Naval Air Station Brunswick (NAS Brunswick).

2. PROPERTY DESCRIPTION

Building 32 is located northeast of the intersection of Pegasus Avenue and Seahawk Avenue at NAS Brunswick (Figures 1 and 2). Constructed in 1981, it is a 1,500 square-foot single story building on a slab foundation with cinder block walls. The building served as the office for the fuel farm for petroleum, oil, and lubricants (POL Office) until 1998, when operations were moved to the new fuel farm office located in Building 658. Building 32 has been unoccupied since that time.

Building 32 was used to test fuel from the previous fuel farm, formerly located to the east. The building contains dispatcher, storage room, laboratory, and locker room facilities. Building 32 was heated by boiler supplied hot-water baseboard system.

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 32, including past use and operations at that location.

According to NAS Brunswick Environmental Department personnel, since its construction in 1981, the sole use of Building 32 has been as the fuel farm POL Office. There is no record of hazardous waste operations at Building 32.

The NAS Brunswick records search revealed the following information pertinent to a future determination as to whether the hazardous waste closure requirements of the MEDEP Regulations Chapter 851, Standards for Generators of Hazardous Waste, Section 11 apply to Building 32.

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. In the review of historical photographs, the 1958 and 1978 photographs show a wooded area and no building present. The aerial photographs dated 1984, 1989, 1993, and 1997 show Building 32 in its current location.

No polychlorinated biphenyl (PCB)-containing transformers that could be a potential source of PCB contamination were listed for Building 32 in the NAS Brunswick Removed Transformers list.

Additional information concerning Building 32 discovered during the file and database search is provided below.

No underground storage tanks (USTs) were registered to Building 32. A 250-gallon aboveground storage tank (AST, A32.1) containing No. 1 fuel oil was located at Building 32, according to NAS Brunswick records.

4. SITE VISIT AND INVESTIGATION

A Building 32 site visit was conducted by Mr. Brandon Smith, P.E. and Mr. James Forrelli, P.E., of TtNUS on June 30, 2009. The purpose of the visit was to verify information gathered during the records search and to collect additional information as necessary to prepare this RCRA Partial Closure Report. TtNUS personnel were accompanied by Mr. D. Bruce Smith, the NAS Brunswick Hazardous Waste Manager, and Mr. Paul Burgio, Navy Base Realignment and Closure (BRAC) Program Management Office (PMO). The Building 32 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 32 was not occupied and in poor condition. Water damage was noted throughout and the presence of mold is suspected.
- The interior consisted of a number of rooms associated with the former fuel farm operations including office space, a dispatcher, storage room, laboratory, and locker room facilities.
- 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.) nor structural modifications that could conceal signs of a past release were observed.
- No hazardous waste storage or accumulation areas were observed.
- No transformers that could be a potential source of polychlorinated biphenyl (PCB) contamination were observed in the immediate vicinity.

Based on the records research findings and site visit observations, it was determined that neither further inspection nor sampling of Building 32 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 32.

6. OTHER ENVIRONMENTAL CONSIDERATIONS

Intact paint on Building 32 interior wall surfaces is not a hazardous waste; however, if the paint peels, flakes, or is removed, the paint-chip waste material may be a hazardous waste, subject to RCRA requirements. Paint wastes exhibiting the "toxicity characteristic" as measured using the Toxicity Characteristic Leaching Procedure (TCLP) must be handled and disposed of in conformance with hazardous waste laws and regulations. Lead-contaminated wastes with TCLP levels at or above 5 milligrams per liter lead are defined as hazardous waste.

Total RCRA 8 metals analysis was performed on Building 32 paint-chip samples as a screening tool in lieu of TCLP. On October 7, 2009, TtNUS collected two paint chip samples from Building 32 for RCRA 8 metals analysis by its subcontractor analytical laboratory (Analytics Environmental Laboratory, Portsmouth, New Hampshire). Sample NASB-B32-PC01 was collected from the east wall of the dispatcher room and sample NASB-B32-PC02 was obtained from the north wall of the dispatcher room (Figure 3). Sample analytical data underwent limited data validation, consisting of field duplicate evaluation, blank contamination evaluation and completeness evaluation.

Total RCRA 8 metals results for each sample are summarized in Table 1. For each metal, results were compared to 20 times the TCLP regulatory limit for hazardous waste. Using “the Rule of 20”, if a result is less than 20 times its TCLP regulatory limit, then the sample could not possibly “leach” enough of the chemical under TCLP conditions to fail the TCLP limit, even if all the chemical dissolved into the extraction fluid.

**TABLE 1
PAINT CHIP SAMPLE RCRA 8 METALS RESULTS
BUILDING 32–POL OFFICE**

RCRA 8 Metals	TCLP Limit (mg/L)	20 x TCLP Limit (mg/kg) ⁽¹⁾	Total Concentration (mg/kg)	
Arsenic	5	100	0.61	3
Barium	100	2000	2900	2400
Cadmium	1	20	0.36	0.47
Chromium	5	100	14	16
Lead	5	100	28	15
Mercury	0.2	4	0.77	1.4
Silver	5	100	0.45	0.17 J

Notes:

Bold italics font indicates result exceeds 20 times the TCLP limit.

(1) TCLP analysis was not conducted. As a screening tool, metals results are compared to 20 times the TCLP limit using “the Rule of 20”.

J estimated concentration

mg/L milligrams per liter

mg/kg milligrams per kilogram

TCLP Toxicity Characteristic Leaching Procedure

As presented in Table 1, concentrations of lead in the Building 32 paint chip samples are lower than 20 times the TCLP limit for lead (100 mg/kg). However, concentrations of barium in sample NASB-B32-PC01 (2,900 mg/kg) and in sample NASB-B32-PC02 (2,400 mg/kg) exceed 20 times the TCLP limit for barium (2,000 mg/kg). If the Building 32 interior wall paint peels, flakes, or is removed, a TCLP test should be completed for the paint-chip waste to determine the applicable waste handling and disposal requirements.

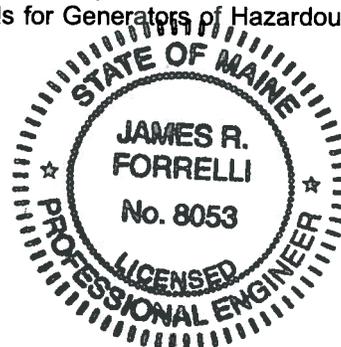
7. LIMITATIONS

This investigation of the hazardous waste closure requirement applies to the Building 32 footprint (as shown on Figure 2) only. It does not apply to the land surrounding or the groundwater underlying Building 32.

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 32, NAS Brunswick, Maine. Therefore, the hazardous waste closure of Building 32 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

1958 NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. 10/09/58.

1978 NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. 11/22/78.

1984 NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. 04/23/84.

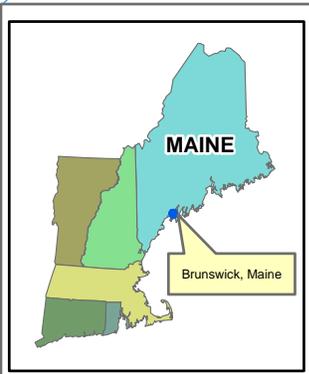
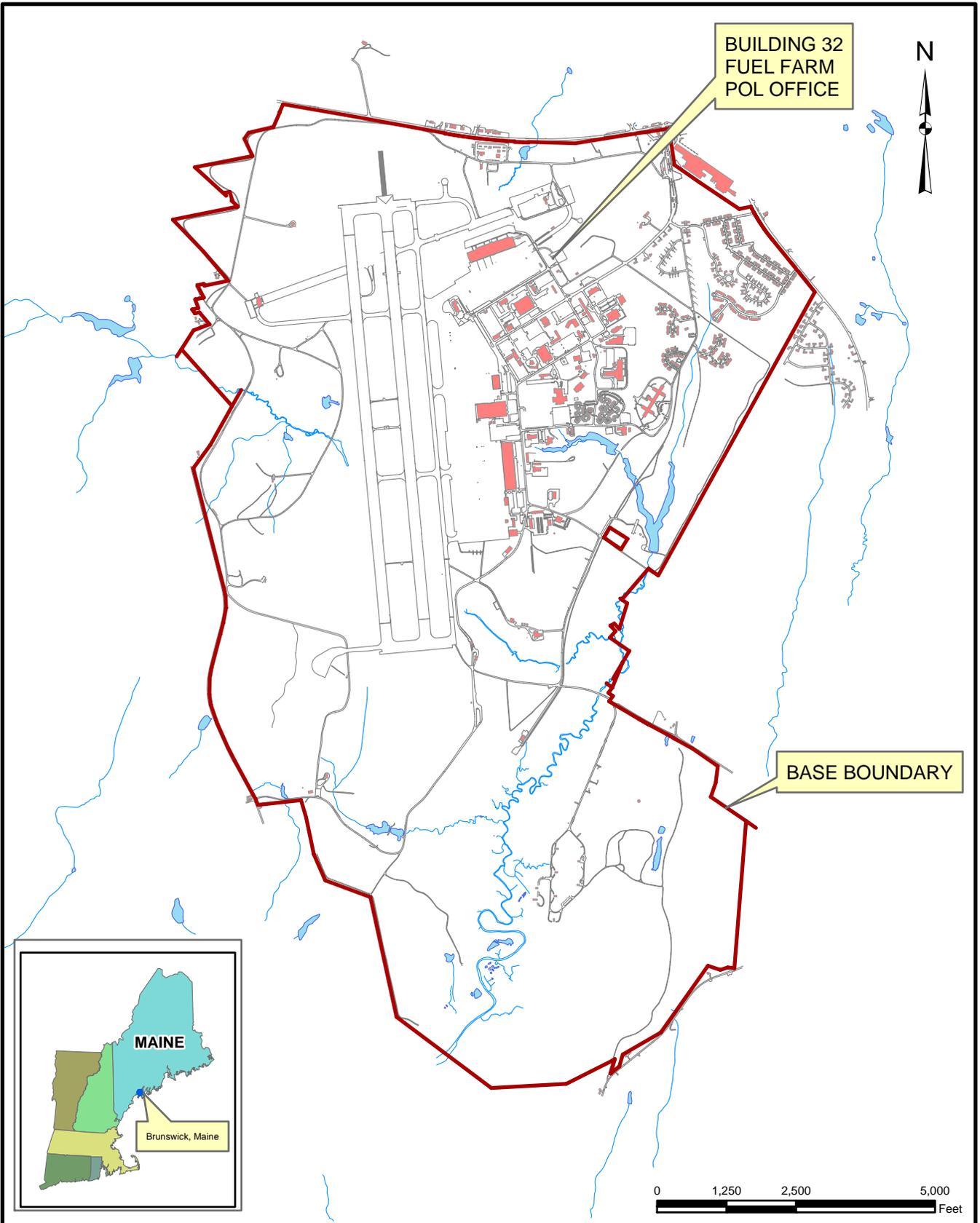
1989 NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. 04/02/89.

1993 NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. 11/08/93.

1997 NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. 05/1997.

BNAS Reuse Master Plan Property Condition Assessment. Mid-Coast Regional Redevelopment Authority, Brunswick, ME. 2006

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



Tetra Tech NUS, Inc.

SITE LOCATION MAP
 BUILDING 32 - FUEL FARM POL OFFICE
 RCRA PARTIAL CLOSURE REPORT
 NAVAL AIR STATION BRUNSWICK, MAINE

SCALE AS NOTED	
FILE I:\02258\CP\DRIN\ASB_BLSG_32_LOCUS.MXD	
REV 0	DATE 03/10/10
FIGURE NUMBER 1	

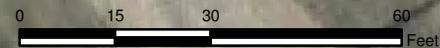


Building 32
Footprint

Pegasus Street

Building Corner	Northing	Easting
North	389153.259	3015797.890
East	389110.979	3015822.674
South	389095.671	3015797.161
West	389139.409	3015772.376

Coordinates are in NAD 1983, Maine West, Feet



Tetra Tech NUS, Inc.

SITE PLAN
BUILDING 32 - FUEL FARM POL OFFICE
RCRA PARTIAL CLOSURE REPORT
NAS BRUNSWICK, MAINE

SCALE
AS NOTED

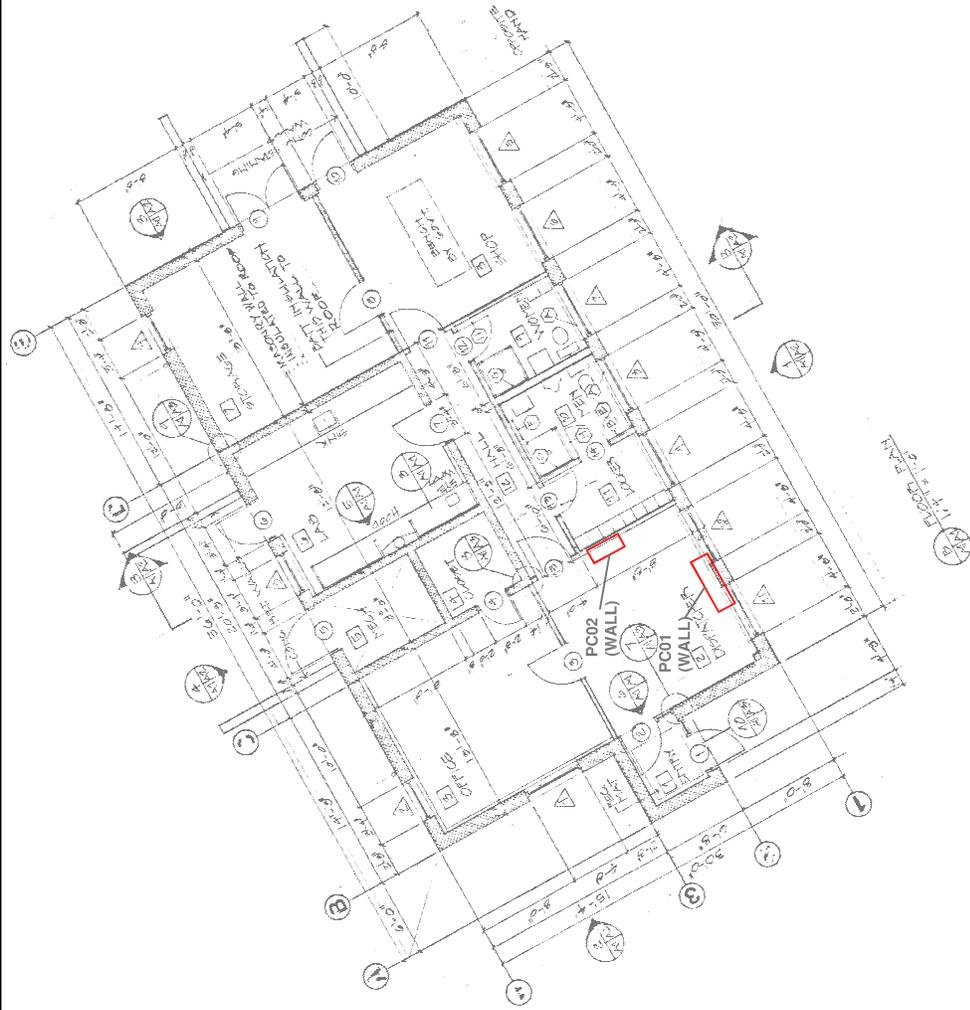
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0	01/15/10

FIGURE NUMBER

2



LEGEND

 PC01 - PAINT CHIP SAMPLE

GRAPHIC SCALE



FLOOR PLAN
 BUILDING 32 - FUEL FARM POL OFFICE
 NAS BRUNSWICK
 BRUNSWICK, MAINE



TETRA TECH INC., INC.

SCALE
 AS NOTED

FILE
 \NASB_BLDG_32_FP.DWG

REV 0 DATE 01/21/10

FIGURE NUMBER
 3

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

Inspection Date: 6/30/2009
Personnel: James Forrelli, P.E. / Brandon Smith, P.E.
Weather: Overcast, 60s

GENERAL BUILDING INFORMATION / USES

Building Name: POL Office
 Function: Fuel Farm Petroleum, Oil, and Lubricants (POL) Office
 Size: 1,500 SF
 Year of Construction: 1981

Building 32 is located north of the intersection of 6th Street and Seahawk Avenue and east of Pegasus Street at NAS Brunswick. It was constructed in 1981 and served as the fuel farm POL office for its entire history. Building 32 consists of a 1,500 square-foot, cinder block wall one level building on a slab foundation.

Building 32 contains a number of rooms associated with the former fuel farm including office space, a dispatcher, storage room, laboratory, and locker room facilities.

Building 32 was used only as the fuel farm POL office. No hazardous materials were used in its operation and no hazardous waste was generated, according to NASB personnel.

Building 31 was heated by a base-board heat provided by a boiler.

BUILDING INSPECTION / CONDITION

No record of hazardous waste stored at Building 32.

The building was not occupied at the time of the site visit and appeared in poor condition. Water damage was noted throughout and suspected mold present.

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.

APPLICABLE REPORTS / DOCUMENTS

Available historical aerial photos were reviewed for past property uses:

- 1958 - No building present, wooded area.
- 1978 - No building present, wooded area.
- 1984 - Building 32 present.
- 1993 - Building 32 present.
- 1997 - Building 32 present.

No USTs were present at Building 32 according to NASB records.

A 250 gallon AST (A32.1) containing #1 fuel oil was located in Building 32 according to NASB records.

A memorandum from the NASB Asbestos Program Manager, stated that "All painted surfaces of building 32 are considered to contain some levels of lead. Other building materials may contain lead, as in roof flashing, vent sealant and window glazing. Laboratory analysis using PLM indicates that Asbestos Containing Vinyl sheeting is present throughout the building and the sink coating in the lab contains asbestos. The rubber membrane roofing system has not been penetrated for sampling and analysis."

HAZARDOUS WASTE STORAGE RECORDS

No hazardous waste was historically stored at Building 32, according to NAS Brunswick Hazardous Waste Manager, D. Bruce Smith.

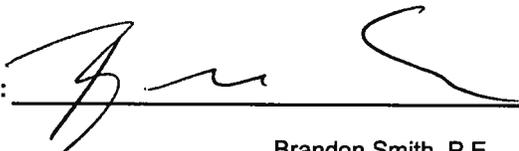
MISCELLANEOUS NOTES

Tetra Tech personnel were accompanied on the inspection by D. Bruce Smith, NAS Brunswick Hazardous Waste Manager and Paul Burgio, Navy BRAC PMO.

P. Burgio (Navy BRAC PMO) requested that lead paint chip samples be collected at Building 32.

(SEE ATTACHED BUILDING FLOOR PLAN AND PHOTOGRAPHS)

INSPECTOR SIGNATURE:



Brandon Smith, P.E.

PHOTOGRAPHS



No. 1 Building 32 – NAS Brunswick
Exterior of Building 32 – Fuel Farm POL Office

June 30, 2009



No. 2 Building 32 – NAS Brunswick
Interior wall in dispatcher room of Building 32 – Fuel Farm POL Office

June 30, 2009