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RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES AND AGENDA 6
DECEMBER 2011 NSY PORTSMOUTH ME
12/6/2011
RESTORATION ADVISORY BOARD (RAB)

**RESTORATION ADVISORY BOARD MEETING
PORTSMOUTH NAVAL SHIPYARD
KITTERY TOWN HALL, KITTERY, MAINE
December 6, 2011**

Restoration Advisory Board (RAB) members at the meeting included the following:

- RAB community members – Doug Bogen, Peter Britz, Diana McNabb
- Navy RAB members – Lisa Joy, Portsmouth Naval Shipyard (PNS).
- Regulatory representative – Iver McLeod, Maine Department of Environmental Protection (MEDEP).

Absent RAB members included the following:

- Navy RAB members – Linda Cole, Naval Facilities Engineering Command (NAVFAC) Mid-Atlantic Remedial Project Manager (RPM).
- Regulatory representative – Matt Audet, United States Environmental Protection Agency (USEPA).
- RAB community members – Michele Dionne, Mary Marshall, Jack McKenna, and Roger Wells.

Guests at the RAB included:

- Gary Hildreth, Matt Thyng, and Debbie White, PNS.
- Bill Deane and Fred Poulin, Shaw Environmental & Infrastructure, Inc. (Shaw E&I).
- Matt Kraus and James Forrelli, Tetra Tech.
- Carolyn Lepage, Technical Assistance Grant (TAG) technical advisor to Seacoast Anti-Pollution League (SAPL).

INTRODUCTION

The meeting was opened by Lisa Joy, Navy RAB Co-Chair. Ms. Joy welcomed everyone to the RAB meeting and requested that attendees introduce themselves. The attendees introduced themselves and stated the organizations they represented.

STATUS OF WORK AND REGULATOR UPDATES

In Linda Cole's absence, Matt Kraus, Tetra Tech, reviewed the status updates for Installation Restoration Program (IRP) work at Operable Unit (OU) 1, OU2, OU3, OU4, OU7, OU9, and Site 30. The presentation is attached to the minutes.

Mr. Kraus indicated that the spending plan for Fiscal Year (FY) 2012 is approximately \$5 million. The current cost-to-complete estimate is \$24 million. Iver McLeod asked if the FY 2012 spending plan included the OU2 remedial action and Ms. Joy replied that it did.

The following highlights updates on the OUs:

- OU1 (Site 10 – Former Battery Acid Tank No. 24): Remedial action is being conducted. Fred Poulin explained that the mobilization began and site set up was conducted the week of November 28, 2011. High tides were flooding the excavation area due to the new moon phase of the lunar cycle so excavation did not begin until the week of December 5, 2011. Excavation is difficult because the soil is very compact and excavation has to be completed by hand in a confined space.

Peter Britz asked why there was a bullet in Section 3 of the Draft Final OU1 LUC RD that stated storm sewer and other maintenance activities were allowed in the OU1 LUC area. Mr. McLeod responded that the statement was likely standard template language agreed to by the Navy and USEPA. Bill Deane pointed out that a main storm sewer line goes through the OU1 LUC area.

- OU2 [Site 6 – Defense Reutilization and Marketing Office (DRMO) Storage Yard, Site 29 – Former Teepee Incinerator Site, DRMO Impact Area (Quarters S, N, & 68)]: The Final Record of Decision (ROD) was distributed and made available to the public. Remedial design documents are being prepared.
- OU3 [Site 8 – Jamaica Island Landfill (JILF), Site 9 – Former Mercury Burial Sites (MBI and MBII), and Site 11 – Former Waste Oil Tanks Nos. 6 & 7]: The Post-Remedial Operation, Maintenance, and Monitoring (OM&M) program continues. Well abandonment and minor maintenance was conducted the week of November 28, 2011. The Final OM&M Plan Update will be issued in December 2011. The second five-year review is being prepared.
- OU4 (Site 5 – Former Industrial Waste Outfalls and Offshore Areas Potentially Impacted by PNS Onshore IRP Sites): The Interim Offshore Monitoring Program continues. Round 12 sampling is anticipated to occur in the spring of 2013.
- OU7 (Site 32 – Topeka Pier Site): The Remedial Investigation (RI) Report is final and preparation of the draft Feasibility Study (FS) Report continues.

- OU9 (Site 34 – Former Oil Gasification Plant, Building 62): The Navy continued resolving regulatory comments on the draft RI Report.
- Site 30 – Former Galvanizing Plant, Building 184: The Navy completed removal action activities, including excavation of the fill material in the vault. A presentation on the removal action was provided at the RAB meeting.
- Community Involvement Plan (CIP): The CIP is an update to the 1996 Community Relations Plan (CRP). There was delay in the internal review of the document; however, the draft is now under preparation and expected to be complete early in 2012.

REGULATOR UPDATE

USEPA --- Matt Audet was absent.

MEDEP --- Iver McLeod: MEDEP is working on a OU4 sediment monitoring database. MEDEP is up-to-date on review and comment on Navy documents.

SITE 30 FIELD WORK STATUS UPDATE

Bill Deane, Shaw E&I, provided an update on removal action for the Site 30, Former Galvanizing Tank Vault. The presentation is attached to the minutes.

Site 30 is the Former Galvanizing Plant, Building 184. Site 30 consists of a former acid tank vault below the ground in a portion of Building 184. The vault was used to hold tanks associated with galvanizing operations in the 1940s and for a clean room facility in the 1950s. When use of the tank vault discontinued, the Shipyard filled in the vault, and covered it in concrete. By the early 1960s, the building was converted to a welding school, which was its use until recent relocation of the welding school. No one is currently in the building; however, after the removal action is complete, another tenant will be moved in. The objective of the removal action is to remove all contaminated material associated with Site 30 to allow for unlimited use and unrestricted exposure.

Shaw mobilized on September 6, 2011 and began construction activities by removing existing welding booths inside Building 184 and creating holding cells for clean fill and construction waste materials at the former DRMO Storage Yard. Next, asbestos tile was removed and the office and bathroom were demolished. Then the concrete slab covering the vault was removed and transported to holding cells in the former DRMO Storage Yard. Finally, 150 cubic yards of material were excavated from the vault. The material excavated was fine course sands and silt that had no noticeable signs of contamination (smells or staining). Approximately 500 gallons of water (including decon water) were pumped out of the vault and disposed of by the PNS Hazardous Waste Facility. Some of the water appeared to be from precipitation coming in through the windows of Building 184 adjacent to the vault. After excavation, the

acid brick lining of the tank vault was cleaned with push brooms and low pressure water streams. No staining was evident on the bricks lining the vault and no penetrations or visible pathways to the underlying concrete vault were found. PNS is performing a historical recordation of Building 184 including pictures taken in accordance with the National Historic Register Photo Policy Factsheet and Maine State Historic Preservation Office (SHPO) Guidelines.

Based upon the excellent condition of the tank vault lining (i.e. bricks) and fill material, regulators and the Navy decided to update the removal action requirements after a site visit on October 5, 2011 by the Navy, USEPA, and MEDEP. The Navy prepared a technical memorandum that proposed elimination of the removal of the acid brick lining and the concrete vault, and therefore, elimination of confirmatory sampling behind the concrete vault. The technical memorandum was provided to USEPA and MEDEP and they concurred with the elimination of these removal action tasks. The technical memorandum also recommended pursuing No Further Action (NFA) at Site 30.

Mr. Deane described the characterization sampling of the excavated material, concrete vault lid, and acid bricks. Excavated soil met the Massachusetts Contingency Plan S-1 criteria and was disposed of by beneficial reuse (suitable for use as daily cover) at a Massachusetts landfill. All concrete and brick sample results were less than removal action levels. Backfilling, site restoration, and project closeout activities will be discussed in a Removal Action Completion Report.

There was discussion over the remedial action process, the change in removal action activities, and whether NFA was appropriate for Site 30. Carolyn Lepage, TAG advisor to SAPL, voiced her concerns about the modification to the removal action at Site 30 including:

- Migration of water in the vault through the grout of the acid bricks and potentially through all cracks in the underlying concrete vault.
- Uncertainty about the integrity of the vault (e.g. if it is sealed then shouldn't water have overflowed since the vault has been there for over 60 years).
- Rationale of not removing the acid brick liner to check the integrity of the concrete vault.
- Source of the crystals on the tank vault, how those crystals factor in the NFA decision, and what would be done to monitor future crystalline growth.
- Work was not performed in accordance with the regulator-approved work plan that the RAB and public had access to for review and comment.

Ms. Lepage stated that the NFA decision relies very heavily upon inspection of the vault and emphasized monitoring was necessary to ensure NFA is the correct decision.

Mr. Poulin explained that:

- when the concrete slab was removed from the vault there was not a lot of water in the vault,
- he walked the vault to informally inspect it and that it appeared to be in good shape emphasizing the “good” construction he saw such as a water tight concrete seal near a drain pipe in the vault, and the
- results of the chemical analysis of the excavated material had a lot to do with the decision to modify the removal action plan.

Ms. Joy stated that there is a new tenant moving into the building who would notice new crystalline growth if it occurred and Mr. McLeod agreed. There was discussion of whether any bricks were removed and if concrete behind those bricks was in good condition. Mr. Poulin indicated that the top layer of bricks was removed and that concrete behind was bricks was in good condition. Ms. Joy told Ms. Lepage she would pass her concerns on to Ms. Cole and Mr. McLeod stated he would pass her concerns onto Mr. Audet. Ms. Lepage stated she would provide written comments to Ms. Cole after rechecking previous investigation reports for Site 30 that had reported more water being measured historically in the vault than was found during the 2011 removal action.

ISSUES

Mr. Bogen informed the RAB he had recently attended two climate change conferences and that a University of New Hampshire researcher estimated sea level rise could be 5 to 10 feet over the next 100 years and get as high as 19 feet during storms. He hopes that this local estimate will be taken into consideration when making future plans for evaluating the long-term effectiveness of remedial actions at the Shipyard. Mr. McLeod stated that the five-year reviews should detect any potential problems associated with sea level rise (i.e., changes in site conditions are evaluated as part of the five-year review).

FUTURE MEETINGS

Ms. Joy indicated that the Navy was proposing March 6, 2012, as the next meeting. The Navy is open to suggestions for the agenda.

Post-meeting note: The next RAB meeting is scheduled for March 6, 2012, and will be held in the meeting room at Kittery Town Hall, 200 Rogers Road, Kittery, Maine. Planned agenda items will be provided with the invitation to the next meeting.

ATTACHMENTS

AGENDA AND PRESENTATIONS FROM DECEMBER 6, 2011



Portsmouth Naval Shipyard Restoration Advisory Board Meeting Agenda

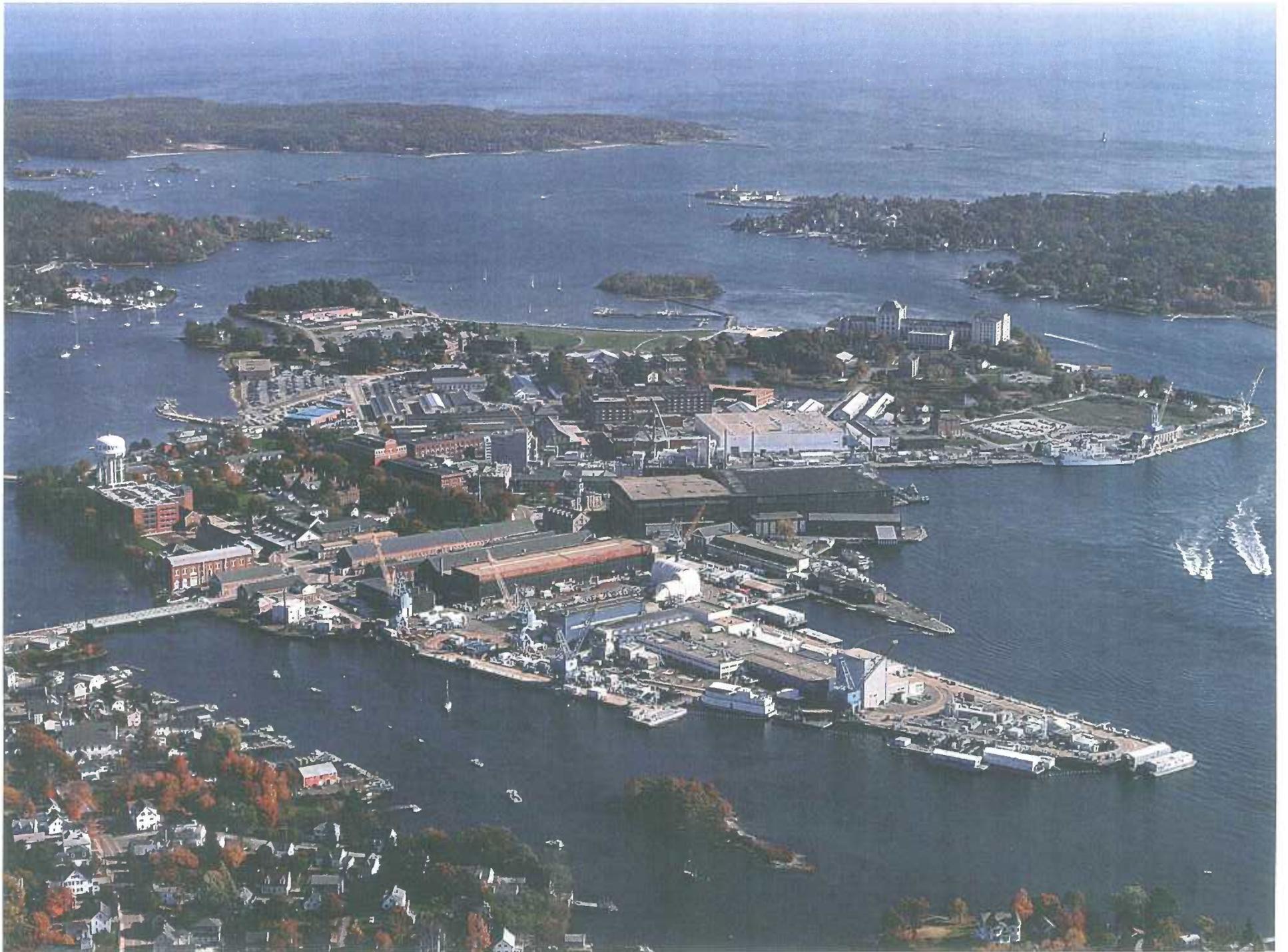


Date – December 6, 2011

Place – Kittery Town Hall, Kittery, ME

Time – 7 p.m. - 9 p.m.

- **Introductions – Ms. Lisa Joy, Navy RAB Co-chair**
- **Community Co-chair Remarks – Mr. Doug Bogen**
- **Status of Work – Ms. Linda Cole, Navy**
- **Regulator Updates – Mr. Matt Audet, USEPA and Mr. Iver McLeod, MEDEP**
- **Site 30 and Operable Unit 1 Field Work Status Update – Mr. Bill Deane, Shaw E&I**
- **Other Issues as Required**



Installation Restoration Funding History



- Approximately \$60 Million spent to date
- FY 2010 spent \$1.0M
- FY 2011 spent \$1.9M
- FY 2012 spending plan \$4.9M
- Estimated \$24M for Cost-to-Complete

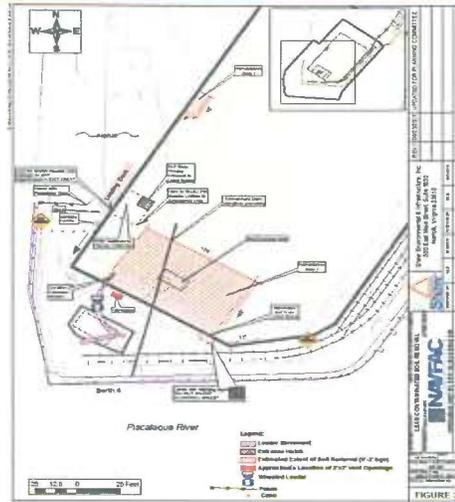
OPERABLE UNIT 1 (Site 10)



- Remedial Action (RA) Work Plan
 - Rev 1 issued 31 Oct 11
 - RA is underway
- Land Use Control Remedial Design (LUC RD)
 - Draft Final issued 18 Nov 2011
- Groundwater Monitoring Plan Component of Long Term Management Plan
 - Draft Post Remediation Groundwater Monitoring SAP issued 30 Aug 2011
 - Regulatory comment resolution

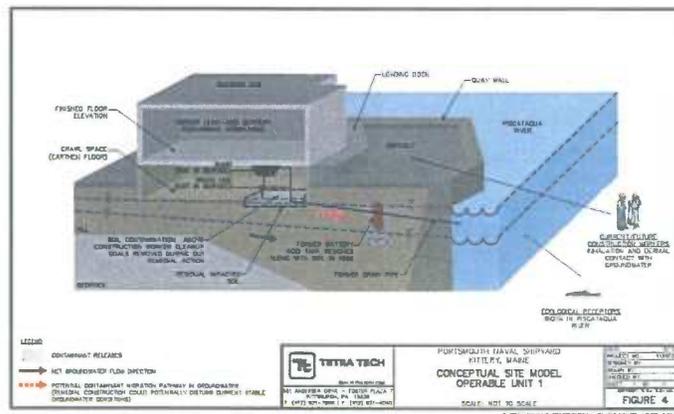


OPERABLE UNIT 1 (Site 10) – Layout



Portsmouth Naval Shipyard Installation Restoration Program, December 2011

OPERABLE UNIT 1 (Site 10) – Conceptual Site Model

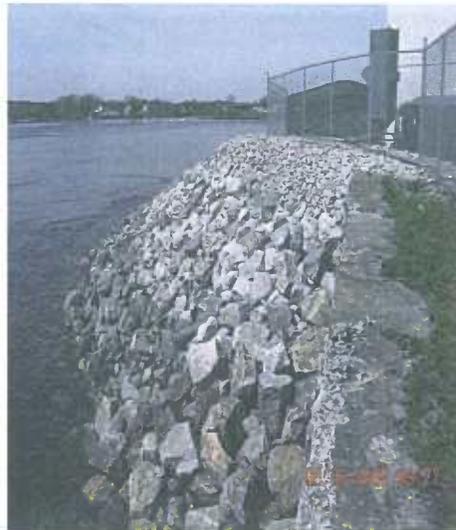


Portsmouth Naval Shipyard Installation Restoration Program, December 2011

OPERABLE UNIT 2 (Sites 6 and 29 and the DRMO Impact Area)



- ROD
 - Final signed 29 Sep 2011
 - Final distributed in Oct 2011 and notice of availability run on 23 Nov 11
- OU2 Pre-design Investigation
 - Data Package Issued Jul 11
- Remedial Action
 - Remedial Design and LUC RD are being prepared



Portsmouth Naval Shipyard Installation Restoration Program, December 2011

Removal Action - DRMO Impact Area at Operable Unit 2



- First phase of archeological survey in Spring 2010
- Second phase of archeological survey in September 2010
- Soil excavation completed
- Site restoration activities completed.
- Construction Completion Report being prepared

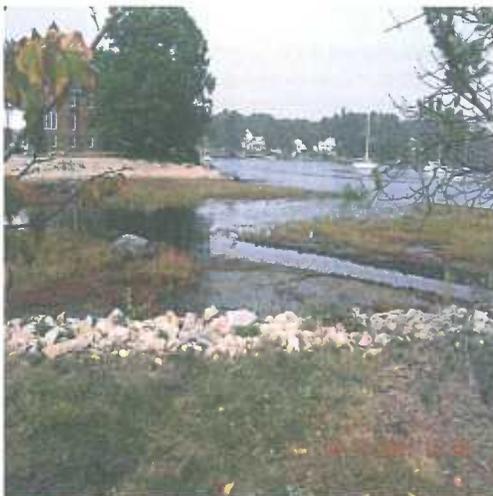


Portsmouth Naval Shipyard Installation Restoration Program, December 2011

OPERABLE UNIT 3 (Site 8)



- Continue with Post-Remedial Action Operation, Maintenance, and Monitoring (OM&M)
- OM&M field work - Round 10
 - Data Package issued 18 Aug 2011
 - Well abandonment and minor maintenance conducted week of 28 Nov 11
- Land Use Control Remedial Design (LUCRD)
 - Final issued 17 Aug 2011
- OM&M Plan Update
 - Final Plan will be issued Dec 2011
- Five Year Review
 - Started Aug 11
 - Final Due Jun 12



Portsmouth Naval Shipyard Installation Restoration Program, December 2011

OPERABLE UNIT 4 (Site 5 and Offshore Areas of Concern)



- FS Report
 - Draft Report issued 9 Jul 2010
 - Regulatory review/resolving regulatory comments
- Interim Offshore Monitoring Plan (IOMP) Update
 - Final Report issued 15 Nov 10
 - Round 11 Data Package issued 21 Sep 11
 - Round 12 anticipated for spring 2013

Portsmouth Naval Shipyard Installation Restoration Program, December 2011

SITE 30 (Former Galvanizing Plant – Building 184)



- **Removal Action Work Plan**
 - Final issued Jul 11

- ***Removal activities continued***
 - Welding booths and concrete floor slab removed
 - Crystalline growth only found at perimeter slab expansion joints and along back wall
 - All fill material removed and vault cleaned
 - Excavation backfilled and floor slab was replaced
 - Construction Completion Report and No Further Action Decision Document will be prepared

Community Involvement Plan



The Community Involvement Plan (CIP) is an update to the 1996 Community Relations Plan (CRP).

- Face-to-face interviews were conducted the week of 14 Mar 2011
- Telephone interviews were completed the following week
- The Draft CIP will be submitted for regulatory and RAB review
- Draft CIP anticipated early 2012

OPERABLE UNIT 7 (Site 32)



- RI Report
 - Jul 11 Draft Final document became Final document Nov 11
- FS Report
 - Being prepared



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Portsmouth Naval Shipyard Installation Restoration Program, December 2011

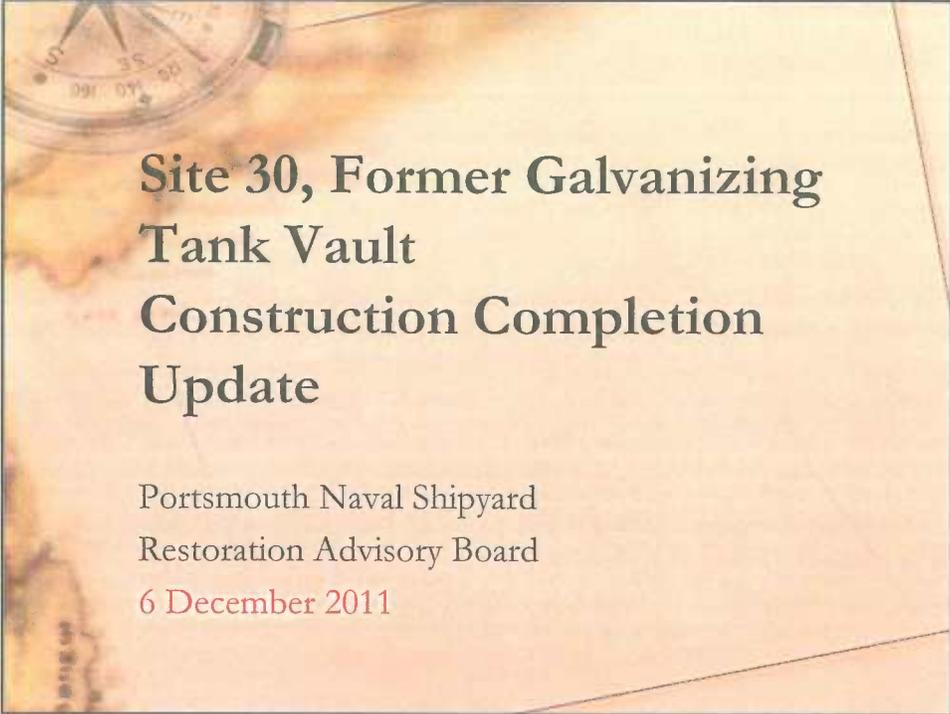
OPERABLE UNIT 9 (Site 34)



- RI Report
 - Draft Report issued 28 Feb 11
 - Regulatory review/comment resolution

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Portsmouth Naval Shipyard Installation Restoration Program, December 2011



Site 30, Former Galvanizing Tank Vault Construction Completion Update

Portsmouth Naval Shipyard
Restoration Advisory Board
6 December 2011

Presentation Goals/Outline

Provide an overview of construction activities completed at Site 30, Former Galvanizing Tank Vault

- Site Background/Layout
- Site Setup/Preparatory Activities
- Tank Vault Contents Removal
- Historic Recordation
- Updated Removal Action Objectives
- Backfill
- Site Restoration
- Removal Action Completion Report

Site Background

- Removal Action focused on the former galvanizing tank vault located in Building 184.
- Past Activities at Building 184
 - Constructed in 1943 as a Galvanizing Plant
 - The tank vault originally contained pickling tanks including a flux tank, a water tank, an acid tank, and a caustic tank.
 - In 1946, Building 184 was converted from a galvanizing plant to the shipyard's electrical testing laboratory.
 - The tank vault was partially filled with gravel, and the drain was covered with a piece of wood and burlap. Four cement foundations were laid over the tank vault to support large shock-testing and vibration-testing machines.

Site Background (cont'd)

- Activities at Building 184, Site 30 (cont'd)
 - Between 1954 and 1956, the building was converted into a Clean Room Facility and used for cleaning and assembling metal parts.
 - The pickling tanks were uncovered, and agitation pumps and heating coils were installed to be used for metal parts assembly.
 - The tanks were filled with various chemicals, including large amounts of sulfuric acid, trisodium phosphate, alcohol, and acetone. The acid tank was periodically used for cleaning carbon steel piping.
 - In the early 1960s, the building was converted into a welding school.
 - The tank vault was again covered over to accommodate the installation of electric welding machines and booths.

Site Background (cont'd)

- Activities at Building 184, Site 30 (cont'd)
 - Between 1973 and 1975, the building was renovated and an office was constructed over the tank vault area.
 - In 1982, an aluminum louver was installed along with 440-volt electrical service.
 - Building was vacant at time of construction.

Removal Action Objective

Mitigate human health and environmental risks associated with the tank vault in a manner such that the property can be used for unrestricted use/unlimited exposure.

Construction Activities

- Mobilization and Site Preparation
- Asbestos Tile Removal/Office Demolition
- Concrete Slab Removal
- Excavation
- Tank Vault Acid Brick Liner Inspection, Wall Washing
- Maine Historic Engineering Record Recordation
- Characterization Sampling
- Backfill
- Transportation and Disposal (T&D)
- Site Restoration

Mobilization and Site Preparation

- Shaw mobilized to site on 6 September, 2011
- Removed existing welding booths, relinquished to PNS for disposal via heavy metal recycling.
- Created holding cells at former DRMO Storage Yard for:
 - Clean backfill material,
 - Concrete,
 - Acid Bricks, and
 - Excavated Fill Material.

Asbestos Tile Removal/Office Demo

- Asbestos Removal-
 - Mill City Environmental, Inc – Mobilized to site on 30 August, 2011;
 - Removed floor tile and mastic on 30 August and 31 August, 2011;
 - Received Certification of Clean, and Clearance for Occupancy from 3rd Party Certified Industrial Hygienist on 31 August, 2011.
- Office Demolition-
 - Removed Electrical and Mechanical connections to office structure;
 - Removed office;
 - Disposed of materials as construction debris.
- Bathroom Demolition-
 - Removed existing bathroom in Northeast Corner of Tank Vault;
 - Drain piping was plumbed into drain within tank vault area.

Concrete Slab Removal

- Concrete slab strategically cut along perimeter to provide relief during removal.
- Concrete was removed utilizing a pneumatic hammer breaking the concrete into smaller pieces.
- Concrete was carefully removed to avoid removal of the soil layer beneath.
- Concrete was transported in a covered wheeled loader bucket to the former DRMO Storage Yard



Existing piping from bathroom tied into floor drain in tank vault via cast iron pipe. Drain was functioning correctly at time of removal, and was sealed during demolition activities.

Floor drain connection and remaining cast iron piping

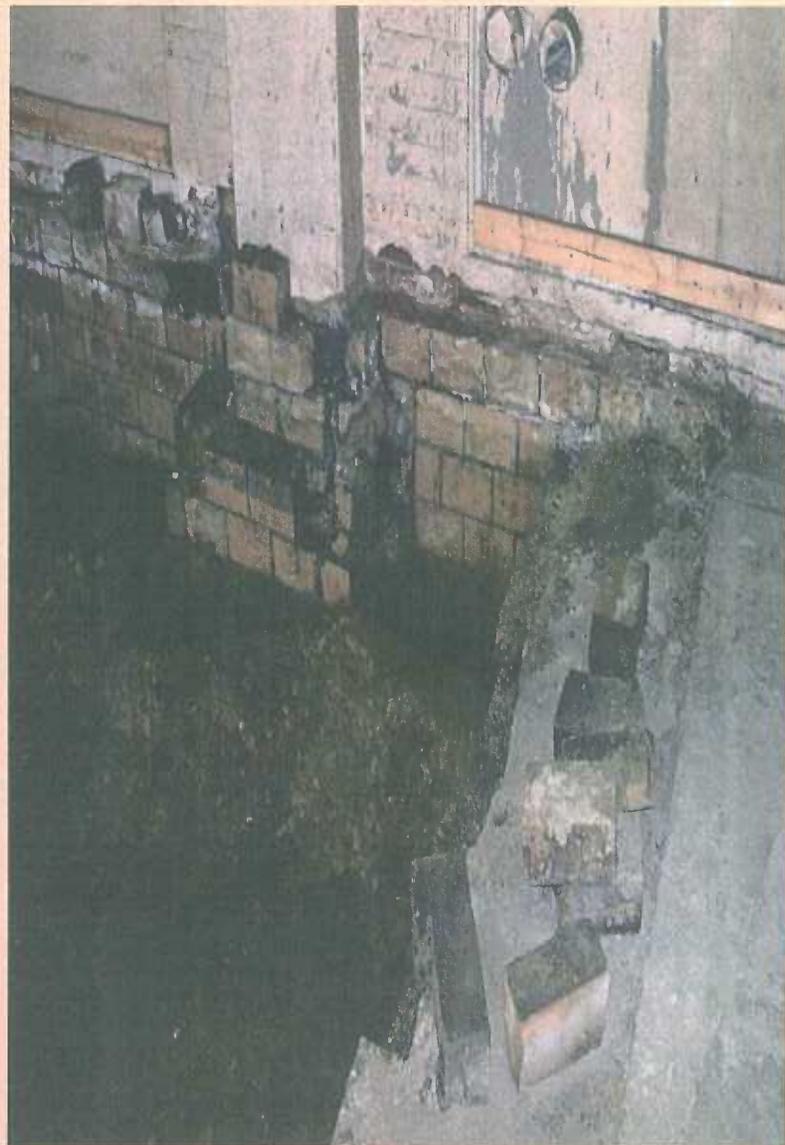


Excavation

- Material Excavated consisted of fine and coarse sands and silt.
- Material exhibited no visible staining, odors, or other sensory indications of contamination.
- Miscellaneous Acid Bricks located within the excavation were segregated and placed within a separate lined stockpile at the former DRMO Storage Yard.
- Soil was transported to the DRMO Storage Yard utilizing a covered wheeled loader bucket. Soil was placed in a lined cell.
- 150 Cubic Yards of Soil were excavated
- Minimal amounts of water were recovered from excavation
 - Approximately 500 Gallons recovered and disposed of by PNS Hazardous Waste Facility (Building 357)
 - Source of water appears to be surficial run-on



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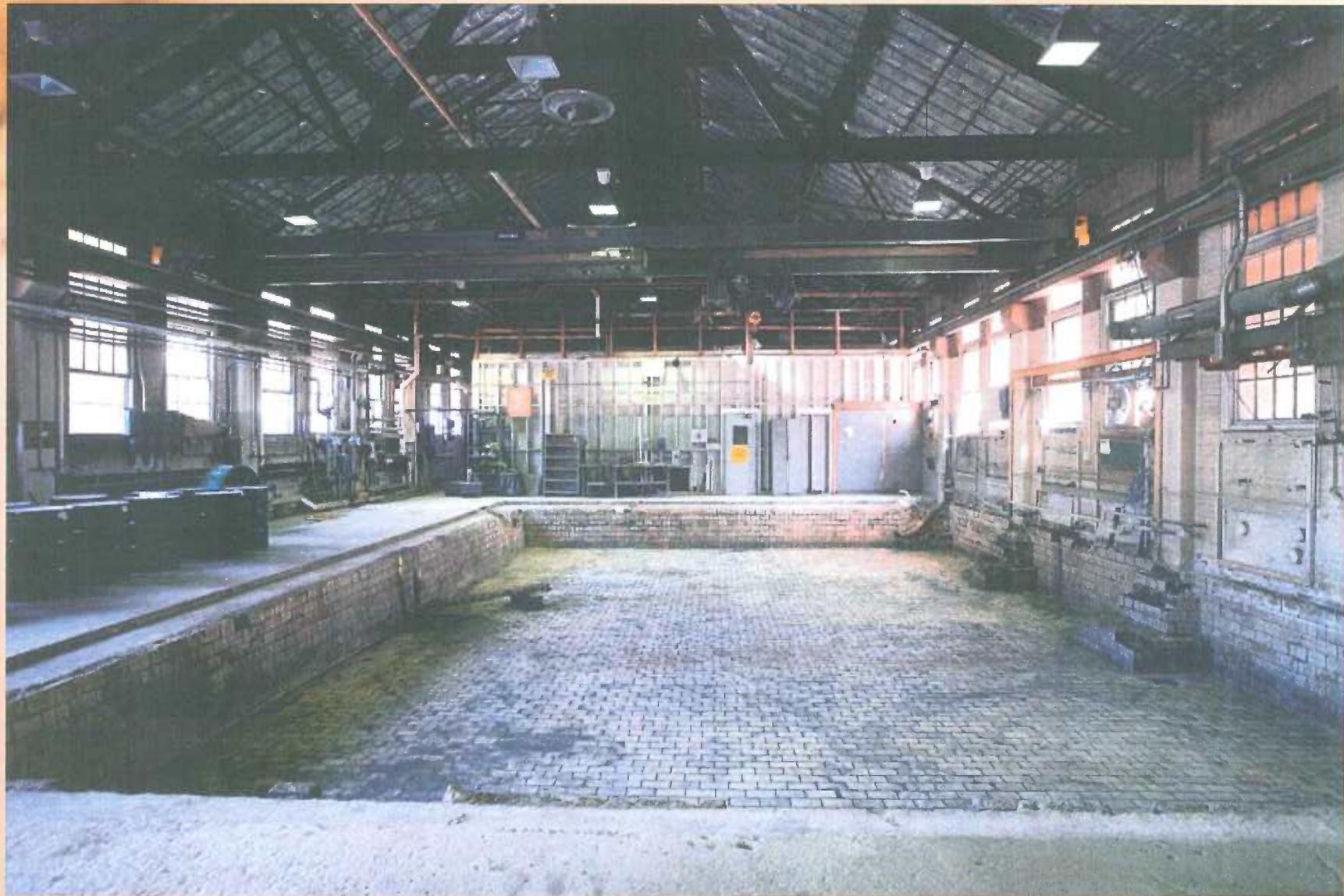


Tank Vault Acid Brick Liner Inspection, Wall Washing

- Acid Brick Lining Material was cleaned utilizing push brooms and low pressure water streams.
- Water was captured and containerized for disposal.
- Vault was air dried utilizing industrial fans.
- No visible staining was evident on the acid bricks.
- No penetrations or visible pathways to the underlying concrete vault were evident.



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Maine Historic Engineering Record Recordation

- PNS is performing a historical recordation of Building 184
- Shaw provided Historical Recordation of the exposed Tank Vault
- Recordation was in accordance with National Historic Register Photo Policy Factsheet and Maine SHPO Guidelines
 - 4' x 5" film
 - Corresponding hi-resolution digital images

Updated Removal Action Requirements

- Based upon the condition of the fill material, acid brick lining, and the lack of visible staining, an update to the Removal Action Requirements was warranted.
- Site Visit by MeDEP, Navy, TtNUS, and Shaw on October 5, 2011:
- Technical Memorandum – *Modification to the Removal Action for Site 30*, TtNUS presenting the anticipated versus the actual conditions of the Site.
 - Elimination of the removal of acid brick lining and concrete vault,
 - Elimination of the confirmatory sampling behind the concrete vault,
 - Recommendation for No Further Action at Site 30 (Decision Document to Follow)
 - Elimination of Removal Action Tasks concurred upon by MeDEP, USEPA

Characterization Sampling

- Excavated Soil:
 - Two – Five Point Composite samples were collected to characterize the soil.
 - Soil was analyzed for Full TCLP, RCI, VOCs, SVOCs, PCBs, PAHs, and Total Metals (As, Cr, Cd, Pb, & Hg).
 - Soil was compared to Massachusetts Contingency Plan S-1 Beneficial Re-Use Criteria.
- Concrete Vault Lid:
 - One – Five Point Composite sample was collected to characterize the concrete.
 - Concrete was analyzed for Full TCLP, RCI, VOCs, SVOCs, PCBs, PAHs, and Total Metals (As, Cr, Cd, Pb, & Hg).

Characterization Sampling

- Acid Bricks:
 - One – Five Point Composite sample was collected to characterize the brick.
 - Brick was analyzed for Full TCLP, RCI, VOCs, SVOCs, PCBs, PAHs, and Total Metals (As, Cr, Cd, Pb, & Hg).

Transportation and Disposal

- Soil
 - Soil met the Massachusetts Contingency Plan S-1 Criteria (**310 CMR 40.0975(6)(A)**).
 - Soil disposed of as Beneficial Re-Use at the Casella Landfill Facility (Greenwood Street Landfill) Worcester, Ma.
 - Approximately 250 Tons were disposed of as beneficial re-use.
- Concrete
 - All results were below EPA RSL (Residential) Except Arsenic 15.5 mg/kg, however, Site 30 background for As is 18 mg/kg.
 - 55 Tons of concrete were disposed of as construction debris.
- Acid Bricks
 - All results were below EPA RSL (Residential)
 - Minor hits on metals, SVOCs, VOCs, and TPH
 - 5 Tons of brick were disposed of as construction debris.

Backfill

- Backfill Profile
 - Backfill to 18 inches below ground surface: 2 ½ inch granite stone product.
 - Backfill 18 inches to 6 inches below ground surface: ¾ inch crusher run stone product
 - Compacted to minimum 95% proctor density

Site Restoration

- 6 - Inch Concrete Slab consisting of:
 - 4,000 p.s.i. concrete,
 - Welded wire fabric reinforcement,
 - Perimeter expansion joints,
 - Saw cut construction/relief joints, and
 - Smooth interior quality concrete finish.

Project Closeout

- Prepare Removal Action Completion Report
 - Text with tables and figures
 - Copies of laboratory reports
 - Survey of Project areas
 - Photo documentation
 - Copies of disposal documentation
- Provide to Navy, USEPA, and MEDEP for review

Questions or Comments?

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