



NAB LITTLE CREEK

INSTALLATION RESTORATION

NEWSLETTER

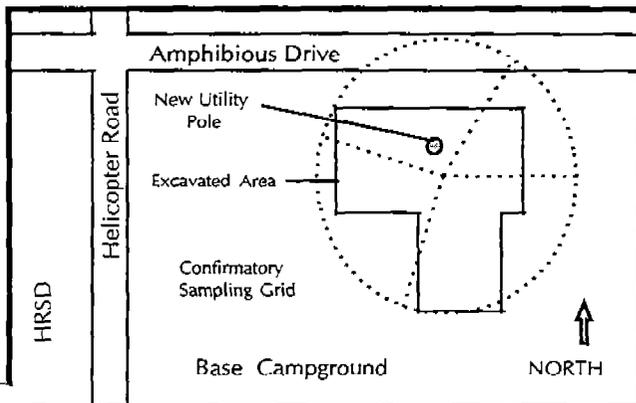
Volume 2
April, 1996

PCB Site is Clean, Restored

Cleanup and restoration of the Site 16 Pole #425 PCB Capacitor Spill has been completed.

Site 16 is located on Amphibious Drive, approximately 300 feet east of the intersection with Helicopter Road. As shown in the site drawing, the base campground is located to the south and the Hampton Roads Sanitation District (HRSD) Sewage Treatment Plant is located southwest of the site. The transformer on pole #425 leaked less than five gallons of cooling fluid containing polychlorinated biphenyls (PCBs) as the result of a lightning strike in the early 1980s. The area of concern consisted of approximately 1,080 square feet immediately surrounding the pole.

A Corrective Measures Plan approved by the Virginia Department of Environmental Quality (DEQ) and the US Environmental Protection Agency (EPA) was prepared to evaluate cleanup options. Removal of the affected soil and disposal in an approved landfill was selected as the preferred cleanup method. The Navy Public Works Center (PWC) Norfolk performed the removal action which began March 13, 1995. Heavy construction equipment was used to excavate some of the soil, but much of the affected soil was removed using hand tools due to numerous underground utilities. The excavated soil, water used to clean tools and other contaminated



The #425 PCB Release, Site 16: The area of excavation as well as the location of the new utility pole is shown. After excavation was completed, four confirmatory samples were taken from the areas shown with dotted lines.



Site 16: Removal action in progress.

debris (utility pole, fencing, trees, framing) were transported to a landfill operated by CWM Chemical Services, Inc. In all, 60 tons of soil and debris were disposed.

The actual excavation covered slightly more area than specified and was slightly deeper than the planned two feet. Removal of the soil was expected to take three weeks, however, due to inclement weather and the need to remove dense vegetation, excavation was completed in the last week of May. After excavation, sampling was conducted to confirm that the remaining soil met regulatory cleanup standards. A total of four samples were taken and analyzed for PCBs by a DEQ approved laboratory. All four samples met regulatory cleanup standards.

The removal action complied with all applicable environmental federal, state and local regulations as well as health and safety requirements. There were no adverse incidents, injuries or indications of airborne contamination leaving the site during the removal.

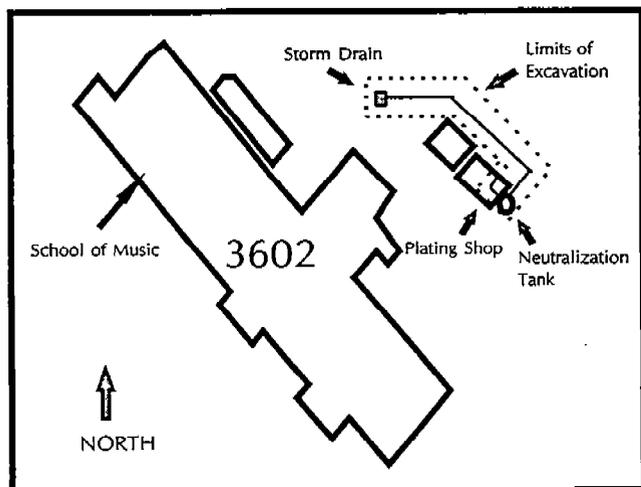
Restoration of the site included backfilling and grading the excavated area. The area was reseeded with grass and the utility pole was replaced. Site restoration was completed by the first week of July.

The Closeout Report for the removal action will be available for RAB review in April.

Excavation at School of Music Complete

Cleanup of the Site 11 School of Music Plating Shop has been completed. The site will be restored in March.

During its period of operation (1964-1974), the School of Music Plating Shop used a variety of heavy metal plating baths, cyanide, lacquer, and lacquer stripper. The site consists of an in-ground concrete tank and its associated piping. Since the potential release of the heavy metals in the tank (chromium, cadmium, lead) presented a possible risk to human health and the environment, the Navy removed the tank, its contents, the associated piping and any affected soil. All material was disposed in an approved landfill. The neutralization tank was identified as a Solid Waste Management Unit (SWMU, see article below) by the Virginia Department of Environmental Quality, and was regulated under the Resource Conservation and Recovery Act (RCRA). The approved removal action met RCRA requirements as well as Navy Installation Restoration Program requirements to ensure all potential future regulatory concerns at the site were addressed. The figure shows the location of the plating shop, the tank, the piping and the storm drain. IT Corporation was selected by the Navy to perform the removal action.



Former School of Music Plating Shop, Site 11: The limits of excavated soil are shown by the dotted line.



Site 11: The top of the neutralization tank, the piping to the storm drain and the old plating shop are shown in the picture.

The removal action consists of two phases. Phase I included excavation of the tank, piping and soil and disposal of the materials. Work began November 6, 1995. The top two feet of unaffected soil was removed first and stockpiled off site for later use as fill. After the piping was removed, excavation continued to a total depth of five feet to remove all potentially affected soil. To remove the tank, the top was first exposed, broken off, and the contents removed. Then, two feet of soil around the sides of the tank was excavated. After removal of the tank, two feet of soil from below the tank was excavated. Excavation inside the plating shop was completed using hand tools because of the restricted space. Excavations outside were completed using a backhoe. To ensure that all potentially contaminated soil was excavated, samples of the soil remaining on-site were taken and analyzed. The removal was completed by November 17, 1995.

The analytical results for the confirmatory soil samples met Regulatory Cleanup standards. Phase II began January 22, 1996. The contractor backfilled the excavation area and replaced the flooring and piping in the plating shop. The area will be graded and seeded in March. The Closeout Report is expected in April, 1996 and will be available for RAB review.

17 Solid Waste Management Units Investigated

A Solid Waste Management Unit (SWMU) is any discernable unit at which solid wastes have been placed. SWMUs are regulated under the Resource Conservation and Recovery Act (RCRA), which requires corrective action for releases of hazardous waste. The Navy handles SWMUs in the IR Program.

Baker Environmental, the Navy CLEAN Contractor, sampled surface soil, subsurface soil and groundwater in order to determine the potential health affects from 17 SWMUs. A computer model was used to determine the

relative risk from each site based on the laboratory data, the site conditions and the possibility of human exposure. Nine of the 17 sites were ranked as having a high or medium risk. The nine SWMUs are: 17 - Small Transformer Storage Area; 84 - Demolition Debris Landfill (IR Site 8); 105 - Steam Plant Flyash Silo; 111 - Pier 10 Sandblast Yard; 117 - Special Boat Squadron 2 Battery Storage Area; 130 - Building 3896 Boat Painting Area; 131-133 - Seabee Area. Due to the potential health risks posed by these sites, funding for further investigations will be considered for 1998.

Coming Up...

□The field work for the Supplemental Remedial Investigation (SRI) of sites 12 (Exchange Laundry Waste Disposal Area) and 13 (Public Works PCP Dip-Tank and Wash Rack) occurred in September, 1995. The purpose of the SRI is to further characterize the nature and extent of chemicals released and perform a base-line risk assessment. Field work involved installing more monitoring wells at both sites and analyzing samples of soil, groundwater, surface water and sediment. Investigations of groundwater characteristics that might affect cleanup alternatives were also evaluated. The Draft Final report will be available for RAB review in the Spring.

□The Ecological Assessment for Sites 7 (Amphibious Base Landfill) and 12 (Exchange Laundry Waste Disposal Area) is being developed. It assesses the risk to fish and other wildlife in Little Creek Harbor from sites 7 and 12 by comparing surface water and sediment quality to reference values and the water and sediment quality in other local harbors. The Draft Final report will be available for RAB review in the Spring.

□The detailed Feasibility Studies for sites 7, 12 and 13 are currently under development. The FS outlines the cleanup options for the sites and analyzes each one on the basis of overall protection of human health and the environment. On the basis of the analysis, the preferred remedial options will be chosen. The Draft Final reports will be available for RAB review in the Spring.

□The Proposed Remedial Action Plan and the Groundwater Monitoring Plan for sites 5 (Motor Oil Disposal Area), 9 (Driving Range Landfill) and 10 (Sewage Treatment Plant Landfill) are currently under development and will be available for RAB review within two months. They outline the long-term groundwater monitoring plans at the three sites.

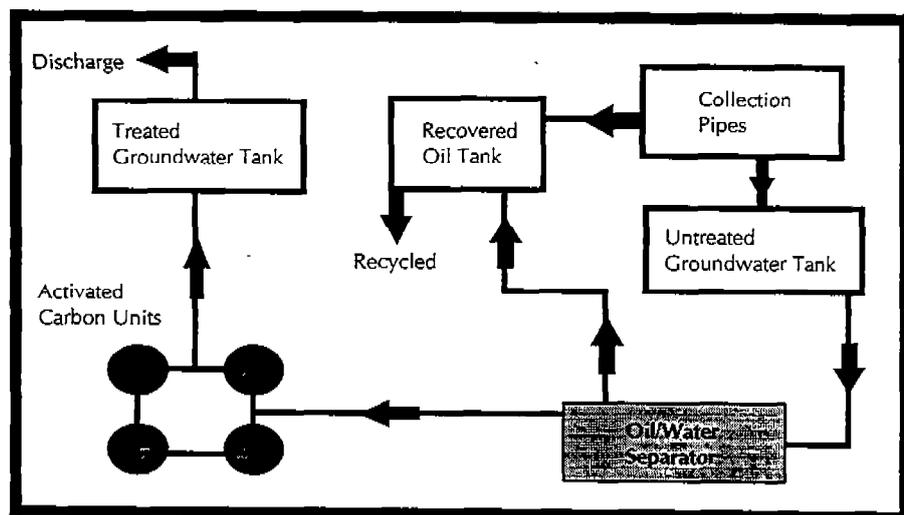
Cleanup Begins at Piers 11-19

Construction of a state of the art treatment plant to clean up the groundwater at Piers 11-19 was completed at the end of November 1995. The system is recovering diesel fuel released into the ground from leaking pipes that transferred fuel from tank 1551 to ships. Replacement of the leaking fuel lines also was completed in November.

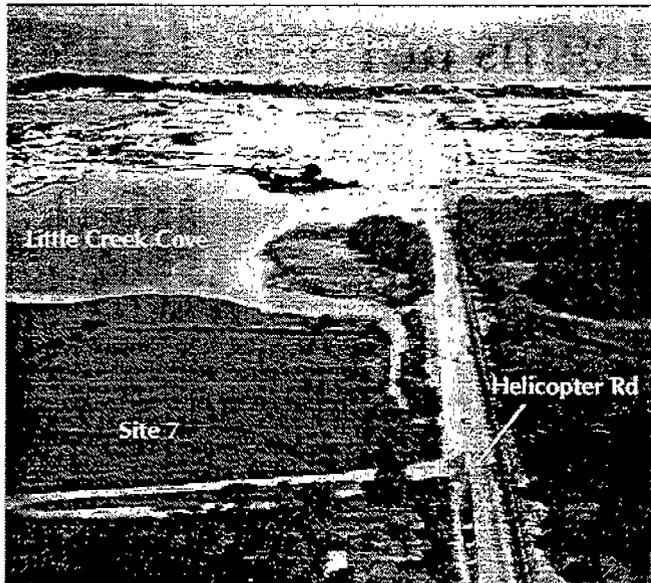
Diesel fuel was first discovered floating on the groundwater near Pier 12 in the mid-1980's during utility upgrade work at the waterfront. The Navy installed a small recovery system at Pier 12 in 1987. Additional fuel was discovered near Piers 17 and 18 in 1989, and later that year the Navy entered into a Consent Order Agreement with the State of Virginia to clean up the site. From 1990 to the time construction of the treatment plant began in 1994, the Navy recovered over 5,500 gallons of fuel from a temporary system at Pier 17. The Virginia Department of Environmental Quality approved the Navy's permanent cleanup plan in late 1993. Construction of the recovery system and water treatment plant began in December 1994.

The recovery system collects groundwater and diesel fuel via underground collection pipes installed between Piers 16 and 19, and between Piers 11 and 13. The recovered oil and water are pumped separately back to the treatment plant building (Building 1540) through piping installed in existing utility tunnels. The oil is stored in a collection tank until it is removed by NAB Little Creek's used oil recycling contractor. The water flows through an oil-water separator and activated carbon cells which remove dissolved chemicals. The treated water is then discharged back into the harbor at Pier 15.

As part of the Consent Order Agreement with the State, the Navy has been issued a permit that requires monitoring the performance of the collection system and treatment plant. NAB Little Creek complies with the permit by analyzing groundwater and soil in the area as well as analyzing water that has been treated by the treatment plant. Monitoring reports are submitted quarterly to the Virginia Department of Environmental Quality. These quarterly monitoring reports will be submitted as long as the plant is in operation. It is estimated to take five years to remove all the diesel fuel from the groundwater.



Piers 11-19 Water Treatment Plant: Recovered diesel fuel is pumped from the collection trench directly into the recovered oil tank. A chemical is added to the groundwater to keep the treatment system clean and then the groundwater flows through an oil-water separator and activated carbon units to remove all contaminants before being pumped to the treated groundwater tank for discharge back to the harbor.



Looking north, the east side of the Amphibious Base Landfill, Site 7, can be seen as well as Helicopter Rd, Little Creek Cove and the Chesapeake Bay.

Recreational Enhancement Plans Progress

NAB Little Creek proposes to construct a jogging path through Site 7, the former Amphibious Base Landfill, for outdoor recreation and exercise. The paths will be constructed in a 10 to 12 acre open area in the middle of the landfill. Previous work in landfill restoration to incorporate outdoor recreation has proved successful.

In the fall of 1994, the majority of the site was covered with six inches of soil and planted with clovergrass. The vegetation has improved since it was planted and is doing well. The most important benefit from planting the vegetation is that it stabilizes the cover of the landfill by preventing erosion. To maintain the area as a field, the site will be mowed in alternating years.

The planted vegetation also helps support the variety of wildlife that inhabits the site. Visitors to the site could expect to see rabbits, muskrats, squirrels and vole burrows. Many birds also use the area like seagulls and wading birds like herons and egrets. Landbirds that may be seen on the site include sparrows, chickadees, osprey, kestrels and other predatory birds. Reptiles and amphibians could also be seen.

Tank Update:

Two Underground Storage Tank (UST) sites were cleaned in 1994. Both clean-ups involved excavation and remediation of affected soils. The soil was treated thermally to limits set by the Virginia Department of Environmental Quality (DEQ). DEQ granted closure to NAB Little Creek for both sites.

General Information

This newsletter is meant to inform and keep interested members of the community and Restoration Advisory Board (RAB) apprised of Installation Restoration (IR) activities at NAB Little Creek. NAB also has formed the RAB to encourage communication between the community and NAB.

If you have any questions or comments regarding the newsletter or would like information on other Installation Restoration topics please call Kelly Greaser at (804) 363-4571.

How Do I Get Involved?

To become a RAB member, contact Kelly Greaser at 363-4571 to obtain an application. Duties and responsibilities include reviewing and commenting on technical documents and activities associated with environmental cleanup at NAB Little Creek. Members are expected to facilitate the exchange of information and/or concerns between the community and the RAB. RAB members are expected to attend RAB meetings or designate an alternate.

NAB encourages community participation by opening RAB meetings to the general public and inviting them to review all technical information about NAB Little Creek's IR Program at any of the Installation Restoration Program Information Repositories at the following locations: Little Creek Library in Norfolk, Central Library and Bayside Area Library in Virginia Beach and the NAB Little Creek Library on base. The repository at Central Library also contains the minutes of past RAB meetings, public comments on final documents and other IR information. If you know a community member who would like to receive this newsletter, call Kelly Greaser at 363-4571 to be placed on NAB's Community Relations mailing list.

Next RAB Meeting

We anticipate holding the next RAB meeting Wednesday June 5, 1996. Documents scheduled to be ready for discussion include the Site 16 Closeout Report, Site 11 Removal Report, Ecological Assessment for Sites 7 and 12 and the Proposed Remedial Action Plan and Groundwater Monitoring Plan for Sites 5, 9 and 10. You may have already received, or soon will receive a letter and questionnaire regarding the next meeting. Please fill out and return the questionnaire as soon as possible.

RAB Members

RAB members may receive copies of documents upon request. We will solicit interest before we inform our contractor how many copies of each document to print. Also, documents are available for review at the information repositories.