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**DEPARTMENT OF THE NAVY**  
ATLANTIC DIVISION  
NAVAL FACILITIES ENGINEERING COMMAND  
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5090 IN REPLY REFER TO  
1822:SMH:srw

13 FEB 92

From: Commander, Atlantic Division, Naval Facilities  
Engineering Command

Subj: DSMOA/CA QUARTERLY STATUS REPORTS

Encl: (1) Virginia Department of Waste Management Quarterly  
Report for the quarter ending 30 Sep 91  
(2) Department of Defense and State Memorandum of  
Agreement (DSMOA)

1. The information in enclosures (1) and (2) is provided for your information and records. DSMOA/CA is the Department of Defense (DOD) and State Memorandum of Agreement/Cooperative Agreement between DOD and Virginia Department of Waste Management (VDWM), the purpose of which is to facilitate active State participation in the Defense Environmental Restoration Program (DERP). The DSMOA/CA is centrally managed for DOD by the Army Corps of Engineers. Through this agreement the VDWM makes available its resources and support to the Navy, specifically for the Installation Restoration Program (IRP). This agreement outlines the roles and responsibilities of DOD and VDWM with regard to the IRP. This, in turn, fosters a working relationship between the Navy and VDWM in accomplishing environmental goals.

2. The Cooperative Agreement (CA) is established for an initial period of two years and covers work for the IRP from March 1991 to March 1993. The CA establishes the type and an estimated amount of support services which will be provided by the State for each installation covered in the DSMOA. The CA then establishes a payment method (with DERA funds) to pay for expenses incurred by the State for review and oversight of the IRP. Most of VDWM's recent efforts have been to establish familiarity with each installation. This quarterly report contains a site visit report for your respective installation.

3. We will continue to forward status reports containing information on your installation when we receive them.

4. If you have any further information that should be passed along to the VDWM or LANTNAVFACENCOM's Installation Restoration

Subj: DSMOA/CA QUARTERLY STATUS REPORTS

Section (Code 1822), contact Ms. Susan Hauser, P.E., Code 1822, AV 565-8856 or Commercial (804) 445-8856 or the LANTNAVFACENGCOM Remedial Project Manager (RPM) for the IRP at your installation, if you have any questions.



W. H. RUSSELL  
By direction

Copy to:

NAVPHIBASE Little Creek (Environmental Office)  
~~NAVPHIBASE Little Creek~~ (Environmental Office)  
NCTAMS LANT Norfolk (Mr. Carl Brashear)  
NSC Norfolk (Yorktown Fuels) (Environmental Office)  
NSC Cheatham Annex (Environmental Office)  
COMNAVBASE Norfolk (Environmental Office) -  
FCTC Dam Neck (Environmental Office)  
NAVHOSP Portsmouth (Environmental Office) /



**VIRGINIA  
DEPARTMENT OF  
WASTE MANAGEMENT**

**FEDERAL FACILITIES PROGRAM**

**QUARTERLY REPORT**

**JULY - SEPTEMBER, 1991**

This report was printed on recycled paper.

VIRGINIA DEPARTMENT OF WASTE MANAGEMENT  
FEDERAL FACILITIES PROGRAM

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FEDERAL FACILITIES PROGRAM

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**Federal Facilities Program  
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**A. Program Management**

During the quarter, the Federal Facilities group visited 15 of the 24 DOD installations and both Base Closures (Cameron Station and Defense Mapping Agency) listed in the DSMOA. A site visit report for each installation and base closure is included in the Appendices of this Quarterly Report. The program manager and project officer attended two Technical Review Committee (TRC) meetings, one at Cameron Station and another at Fleet Combat Training Center-Dam Neck. Documents have been submitted to the Federal Facilities Group for review from Naval Air Station-Oceana, Naval Amphibious Base-Little Creek, Naval Weapons Station-Yorktown, Naval Supply Center-Yorktown Fuels, Naval Supply Center-Cheatham Annex, Fleet Combat Training Center-Dam Neck, Marine Corps Combat and Development Command (Quantico), Naval Surface Warfare Center-Dahlgren, Fort Eustis, Fort Lee, Fort Story and Cameron Station. A field trip to the Naval Radio Station Driver was conducted to observe the field work going on: biota sampling, groundwater sampling, surface water sampling and sediment sampling.

Anne Field contacted Roxanne Diel at USATHAMA concerning human health and environmental effects of munitions and received a number of publications from her on this subject. She also contacted Patty Hovater at Oak Ridge National Laboratories for information concerning this subject on August 2, 1991. Ms. Hovater sent the proposed water quality criteria for USATHAMA to the DWM.

The following documents have been received for review and comment:

Naval Air Station, Oceana

"Interim RCRA Facility Investigation Final Report, Naval Air Station, Oceana, Virginia Beach, Virginia" prepared by CH2M Hill; dated August 1991.

Naval Amphibious Base, Little Creek

"Final Progress Report Round 1 Verification Step" prepared by CH2M Hill; dated October 1986.

Naval Weapons Station, Yorktown

"Remedial Investigation Interim Report, Naval Weapons Station, Yorktown, Virginia" prepared by Dames & Moore and revised by Versar; dated July 1, 1991.

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"Work/Sampling Plan, Site Inspection of Site 21 - Battery and Drum Disposal Area", prepared by Roy F. Weston; dated August 1991.

Naval Supply Center, Yorktown Fuels

"Final Remedial Investigation Interim Report, Naval Supply Center (Norfolk), Yorktown Fuels Division, Yorktown" prepared by Dames & Moore; dated February 1991.

"Draft Final Work Plan for Remedial Investigation/Feasibility Study, and Environmental Risk Assessment" prepared by Environmental Science & Engineering, Inc.; dated August 1991.

Naval Supply Center, Cheatham Annex

"Final Remedial Investigation Interim Report, Naval Supply Center (Norfolk), Cheatham Annex" prepared by Dames & Moore; dated February 1991.

"Draft Final Work Plan for Remedial Investigation/Feasibility Study and Environmental Risk Assessment" prepared by Environmental Science & Engineering, Inc.; dated August 1991.

Fleet Combat Training Center, Dam Neck

Minutes from TRC meeting, July 24, 1991.

Marine Corps Combat and Development Command (Quantico)

"PCB Removal Action Marine Corps Combat and Development Command, Quantico, Virginia Final Report" prepared by Radian Corp.; dated August 1991.

"Milcon P-402 Site Assessment", telefax.

Naval Surface Warfare Center, Dahlgren

"Remedial Investigation/Feasibility Study at the Naval Surface Warfare Center, Dahlgren, Virginia" prepared by Dames & Moore and submitted by Hazwrap Support Contractor Office, Martin Marietta Energy Systems, Inc.; dated January 1990, includes 5 volumes:

- Part A: Draft RI/FS Work Plan
- Part B: Quality Assurance Project Plan
- Part C: Field Sampling Plan - Vols I and II  
(Appendices)
- Part D: Health and Safety Plan

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Fort Eustis

"Draft Site Investigation Report for the Fort Eustis Preliminary Assessment/Site Investigation and the Fort Eustis Nike Preliminary Assessment/Site Investigation", prepared by James M. Montgomery; dated August 1991.

"Fort Eustis Final Analytical Results Document", prepared by James M. Montgomery; dated August 1991.

"Fort Eustis Final Geotechnical Information Document", volume 1 and 2, prepared by James M. Montgomery; dated August 1991.

Fort Lee

"Preliminary Assessment/Site Investigation Report"; dated May 1991.

Fort Story

"Draft Site Investigation Report for the Fort Story Preliminary Assessment/Site Investigation and the Fort Story Nike Preliminary Assessment/Site Investigation", prepared by James M. Montgomery; dated August 1991.

"Fort Story Final Analytical Results Document", prepared by James M. Montgomery; dated August 1991.

"Fort Story Final Geotechnical Information Document", volume 1 and 2, prepared by James M. Montgomery; dated August 1991.

Cameron Station

"Summary of Additional Work - Cameron Station Remedial Investigation Report", by letter dated August 2, 1991, USATHAMA.

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**B. Public Relations - Federal Facilities**

General Community Relations for DOD Program  
Non-Site Specific

1. Jamie Walters, Community Relations Officer (CRO) of the DWM continued to contact the installation Public Information Officers (PIO) in Virginia to discuss the possibility of having a Federal Facilities Community Relations meeting in the winter or spring 1991/92.
2. She conducted interviews to fill staff vacancy for a part time position to support the federal facilities community relations program and continued to train staff regarding the DSMOA activities and requirements.
3. Community Relations staff continued with efforts to set up files for DSMOA sites, become more familiar with DERP/DIRP and DSMOA roles, regulations, and issues.
4. Jamie Walters responded to citizen inquires on the DSMOA and Virginia involvement in the Federal Facilities Cleanup programs.

Site Specific Activities

1. *Naval Air Station, Oceana*

A site visit and meeting are scheduled for October 23, 1991, to discuss the site status and community relations effort.

2. *Naval Supply Center, Craney Island Fuel Depot*

A site visit and meeting are scheduled for November 13, 1991, to discuss the site status and community relations effort.

3. *Naval Amphibious Base, Little Creek*

Jamie Walters visited the site on September 26, 1991, to discuss the site status and community relations activities.

4. *Norfolk Naval Shipyard*

A site visit and meeting are scheduled for November 13, 1991, to discuss the site status and community relations effort.

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5. *Naval Weapons Station, Yorktown*

Keith Vida visited the site on August 20, 1991, to discuss the site status, community relations status and planning with Brenda Norton Lantdiv. Jamie Walters reviewed and provided comments on the Community Relations Plan draft. She also reviewed and provided comments on the slide show for community relations effort.

6. *Naval Supply Center, Yorktown Fuels*

Jamie Walters visited the site on September 11, 1991, to discuss the site status and community relations activities.

7. *Naval Supply Center, Cheatham Annex*

Jamie Walters visited the site on September 11, 1991, to discuss the site status and community relations activities.

8. *Norfolk Naval Base*

Jamie Walters visited the site on July 31, 1991, to discuss the site status, community relations status and planning. She discussed the community relations interviews with Brenda Norton Lantdiv and Melissa Davidson (PIO).

9. *Naval Surface Warfare Center, Dahlgren*

Jamie Walters visited the site on July 10, 1991, to discuss the site status, community relations status and planning with the installation staff. She discussed the necessary community relations items with the installation staff.

10. *Fort Lee*

Jamie Walters discussed and forwarded information about a resident complaint and concern regarding groundwater contamination at the installation.

11. *Defense General Supply Center*

Jamie Walters scheduled and attended the Community Relations Plan (CRP) interviews on July 31, August 1 and August 7, 1991. She drafted a community relations plan and completed the necessary revisions. She was in

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contact with the installation PIO, George Dellinger, and the project officer, Bill Saddington, on the project status, activity roles, upcoming community relations needs and schedule. She spoke with various citizens, media, and local officials on the status of the site, community relations. She also monitored technical site activities and submitted reports and memos on activities for grant amendments, activity changes, and general information updates to the Director of Special Programs and program manager.

12. Virginia Air National Guard - Richmond International Airport

Jamie Walters met with Stewart Maginnis (PIO) on September 2, 1991, to discuss the community relations schedule and plans, site status, and the DERP and provided comments on the CRP.

C. Installation-Specific Activities and Project Officers

Navy

1. Naval Air Station, Oceana - Anne Field

A site visit has been scheduled for this installation for October 23, 1991, with Jesse Waltz, Lantdiv Remedial Project Manager. Anne Field received a letter of September 26, 1991, from P. A. Rakowski, Lantdiv Environmental Programs Branch Head, transmitting a copy of the Interim RCRA Facilities Final Report for the installation and stating that a tentative date of November 7 had been set for the Technical Review Committee (TRC) meeting. This meeting has been rescheduled for October 31, 1991.

2. Naval Supply Center, Craney Island Fuel Depot-Anne Field

A site visit of the installation has been scheduled on November 13, 1991.

3. Naval Amphibious Base, Little Creek - Anne Field

Anne Field, Jamie Walters and Erica Dameron visited the installation on September 26, 1991, and met with Scott Park, Lantdiv Remedial Project Manager, and Anne Marple, installation environmental engineer. Anne Field has

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completed a site visit report. This report is included in the Quarterly Report (Appendix A).

4. *Norfolk Naval Shipyard - Anne Field*

A site visit of the installation has been scheduled on November 13, 1991.

5. *Naval Weapons Stations, Yorktown - Anne Field*

Anne Field, Keith Vida and Erica Dameron visited the installation on August 20, 1991. Brenda Norton, Remedial Project Manager conducted the tour of the 16 DERP sites with Carolyn Neill and Nina Johnson (Environmental Staff at the Installation) and DWM personnel. Anne Field has written a site visit report which is included in the Quarterly Report (Appendix B). The RI/FS workplan is expected to be completed in October 1991. A TRC was held in 1989 and comments submitted were incorporated in the workplan.

Site #18 Building 476 - Discharge, originally designated in the PA/SI as not requiring any further action, will be included in the RI/FS. This site is a discharge point from Building 476 which goes into a small creek. Batteries were drained in the building and the liquids discharged to the creek. More sampling will be conducted in this area. A draft workplan will be submitted to DWM for comments on this site.

A new site was discovered in October 1990. This site has been designated as Site #21 - Battery/Drum Disposal Area. A PA/SI is now being conducted. The site was a dumping area for several thousand batteries. The number of batteries and the extent of contamination is unknown. The batteries are approximately one foot in diameter and appear to be 1950's vintage. They are partially buried on a hillside and are referred to by the installation personnel as the "mountain" of batteries. Adjacent to the battery disposal area, is a drum dumping site. Several hundred drums from one gallon to 55 gallons size were visible and severely corroded. Labels on some 35-gallon size indicated that they originally contained dry cleaning fluid and had dates ranging from 1955 to 1959. This installation's Environmental Office has recently reported to the local newspapers that they believe the installation will be listed on the NPL based on the HRS scoring by the installation's contractor. EPA has not

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yet notified the installation but has requested additional data and more information.

Anne contacted, DWM investigator, Jim Saunders about the aerial photos of the installation. However, aerial photos in the Department's files did not show enough of the installation. She plans on contacting other state agencies to obtain some historical aerial photos covering the newly discovered site to try to confirm the date and the extent of drum and battery dumping.

Anne Field has reviewed the Remedial Investigation Interim Report dated July 1991 prepared by Dames and Moore and revised by Versar. She discussed the site sampling program proposed with Glenn Metzler (Toxicologist) and Erica Dameron. A letter was finalized commenting on the proposed sampling program.

Anne also reviewed "Work/Sampling Plan, Site Inspection of Site 21 - Battery and Drum Disposal Area" prepared by Roy F. Weston and dated August 1991. She discussed the work/sampling plan with Glenn Metzler and Erica Dameron. Anne met with Kelvin Hurdle, program geologist on September 20 to get comments on proposed well construction described in the document. A letter was finalized commenting on "Work/Sampling Plan, Site Inspection of Site 21 - Battery and Drum Disposal Area" prepared by Roy F. Weston and dated August 1991.

6. Naval Radio Station, Driver - Glenn Metzler

On August 12, 1991, Anne Field and Erica Dameron visited the installation and toured the sites with Ken Walker, Lantdiv Remedial Project Manager. A site visit report is included in the Quarterly Report (Appendix C).

Anne Field and Glenn Metzler visited the site on August 16, 1991, to observe Remedial Investigation Activities. They met with Mr. Ken Walker and a field crew from Ebasco Environmental headed by Mr. Jim Ashe, field project manager. Ebasco began field work on August 13 and had already obtained groundwater samples from the four wells around the Star Creek site, and surface water and sediment samples from Star Creek and Oyster House Creek. Biota samples for tissue analysis and community diversity assessment were on-going through the week. They discussed with Mr. Walker the possibilities for additional biota sampling close to the actual PCB spill area. He agreed with the need for additional sampling in

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this area and all parties agreed that both fiddler crabs and grass shrimp (if enough could be found) would be sampled from the marsh in the immediate area of the spill. Two other sites on the Driver facility were also inspected at this time - the old landfill and the closed gasoline station.

Glenn Metzler has reviewed the Confirmation Study at the installation. He sent written comments to Ken Walker on August 27, 1991, recommending that a removal of the PCB contaminated soil be initiated as soon as possible.

7. *Naval Supply Center, Yorktown Fuels - Anne Field*

Brenda Norton (Lantdiv Remedial Project Manager) contacted Anne Field on August 7, 1991, requesting information on QA/QC needs for non-NPL sites specifically laboratory data validation. Anne discussed the need for NPL and non-NPL site data to be of comparable quality. Brenda Norton agreed that they would follow EPA's NPL QA/QC procedures at all sites.

Anne Field, Jamie Walters and Erica Dameron visited the installation on September 11, 1991, with Brenda Norton, Lantdiv Remedial Project Manager and toured the sites undergoing remediation. A site visit report is included in the Quarterly Report (Appendix D).

The installation has 14 sites designated as sludge pits associated with underground storage tanks and one site which was an old sludge farm. Some of the underground tanks are constructed of concrete and date back to 1918. These tanks held up to 50,000 barrels of a special Naval fuel blend similar to Bunker Oil. These tanks are no longer active. Only three tanks are currently active. The tanks were scheduled to be closed last year, however, during Desert Storm they were put back into service. The sludge farm is an area where during October 1980 to 1981 sludge from the underground tanks was land applied as an experimental method for disposal. Corn and wheat crops were then planted unsuccessfully. The area has now solidified and there is some vegetative growth.

A contract has been negotiated and will be awarded before the end of the federal fiscal year for addition sampling and drafting of the final RI/FS report for these sites at a cost of approximated \$471,000. Field work is anticipated to start in February 1992.

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8. *Naval Supply Center, Cheatham Annex - Anne Field*

Anne Field, Jamie Walters and Erica Dameron visited the installation on September 11, 1991, with Brenda Norton, Lantdiv Remedial Project Manager and Chick Salyers from the installation and toured the sites undergoing remediation. A site visit report is included in the Quarterly Report (Appendix E).

The Confirmation Study identified three sites which require further action. One site is an old landfill located along the York River. This landfill received incinerator burning residues from 1942 until 1951 and was a general landfill from 1951 until 1972. This unlined landfill received a variety of wastes including paint, paint thinners and solvents, medical wastes and unspecified drugs including ether, and construction debris. It was closed and covered in 1981. Monitoring wells have been installed.

It is anticipated that a contract will be awarded soon for approximately \$530,000 for the additional sampling and for completion of the final RI/FS report.

9. *Norfolk Naval Base - Anne Field*

Sharon Walligora, Environmental Protection Specialist with the Naval Base, telephoned Anne Field on July 8, 1991, to report that the first eight private wells tested as a follow-up the groundwater contamination found in monitoring well at Camp Allen Landfill were negative. Anne Field reported the results to the State Water Control Board (SWCB) on that same day. She discussed with Glenn Metzler on July 3, 1991, levels of VOCs that might be considered high in private wells used for irrigation and other non-drinking water uses.

Anne Field, Jamie Walters and Erica Dameron visited the installation on July 31, 1991. They met with Andrew Kissell, Section Head, Installation Restoration Section, for Lantdiv, for an overview of the Defense Environment Restoration Program (DERP) at Lantdiv facilities. The present status of the Naval Base DERP sites were discussed and a tour was conducted with Ken Walker, Lantdiv Remedial Project Manager for the installation and Sharon Waligora, Environmental Engineer at the Base. A site visit report has been written and is included in the Quarterly Report (Appendix F).

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Considerable progress has been made at several sites at this installation. Site #7 - Building V60/V90 has been completely demolished and all debris removed. This building was the site of a PCB transformer fire which led to the contamination of the building with PCBs and Dioxins. The building was also contaminated with radium, asbestos, beryllium and heavy metals. The cost for remediation was between \$18-20 million. At Site #4 - Transformer Storage Area, remediation will be initiated with issuance of a construction contract. This area was used to store transformers from 1940's to 1978. Soil and groundwater sampling have indicated the presence of PCBs. The RD/RA has been drafted. A TRC is planned for the near future proposing the alternatives for remediation. The RD proposal includes solvent extraction, incineration or landfill disposal. The estimated cost for incineration is approximately \$3.5 million and landfill disposal is \$1.5 million. Two additional sites are planned to be added to the program in FY92. One site is the Salvage Yard by Camp Allen and the other is the W-316 Building PCB Waste Work Area. A PA will be conducted in FY92.

10. *Fleet Combat Training Center, Dam Neck - Anne Field*

A TRC meeting was held at 9:00 a.m. on July 24, 1991. Anne Field, Jamie Walters and Erica Dameron of the DWM attended the TRC. Also present were Nina Johnson, Lantdiv Remedial Project Manager; Wilkie Din, Dam Neck Public Works Department; and Jeff Cange and Alan Felser with EBASCO, consultants for the installation. The meeting was held to review the Draft Final Site Inspection Report on the Regulus Avenue Landfill (Site 1) and the Former Pesticide Shop (Site 6). No further action is proposed at these sites except annual groundwater monitoring. Anne Field discussed the results of the Site Inspection Report with Glenn Metzler, Superfund Toxicologist, on July 18, 1991. Although the levels reported did not indicate any real risk, elevated levels of mercury may warrant additional testing and source tracking. She also contacted David Borton, a geologist with the SWCB Tidewater Regional Office on July 19, 1991, and discussed the SWCB's water quality standards. On July 17, 1991, Anne Field contacted George Kennedy with the Hampton Roads Sanitation District, concerning the water quality monitoring in the area of the HRSD Atlantic Plant (close to Dam Neck). A copy of the data available on Lake Tecumseh was requested.

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A site visit of the installation was conducted in the afternoon of July 24, 1991. A site visit report (on July 24, 1991) has been written and is included in the Quarterly Report (Appendix G). Anne Field contacted Charles Morgan at SWCB on June 29, 1991, to obtain data on hardness from SWCB ambient water quality monitoring station on Hell Point Creek (near the installation). This information was requested by Jeff Cange and Alan Felser during the TRC meeting. She contacted them and forwarded the information. Anne Field received a letter dated September 17, 1991, with the minutes from the July 24, 1991, TRC meeting concerning the SI report with a request for comments.

Anne Field has reviewed a report from the HRSD titled "Nutri-Green, Progress in Recycling at the Progress Farm, 1990 Summary". This report included monitoring data and background data collected by HRSD for their sludge farming operation over a ten year period. Because of the proximity to the installation, this report will supply additional information on the background groundwater and soil quality.

11. Naval Hospital Portsmouth - Anne Field

On August 12, 1991, Anne Field and Erica Dameron visited the installation and toured the sites with Ken Walker, Lantdiv Remedial Project Manager, and Robert Wall, Facilities Management Engineer and Energy Management Officer. A site visit report is included in the Quarterly Report (Appendix H).

12. Marine Corps Combat and Development Command  
(Quantico) - Glenn Metzler

Glenn Metzler has completed the review of the RI/FS and he has sent his comments by letter dated July 17, 1991, to the facility (Colonel W. Gooding) and Naval Facilities Engineering Command (Ms. Sabrina Greene). This document was considered incomplete due to the lack of any proposals for risk assessment and feasibility study. The majority of site specific comments concerned the Old Landfill/DRMC Scrapyard site where contaminants included PCBs in the soils and sediments and numerous substances in the groundwater. Additional focus on the interconnection of groundwater beneath the landfill and the Potomac River was recommended. Additional sampling was also requested. Immediate action was urged for

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several sites, including a pesticide burial area and a fire training pit.

Glenn Metzler has sent a letter to Ms. Deidre Murphy of the Maryland Department of Environment on July 24, 1991. This letter informed them of the RI/FS activities at Quantico since the state of Maryland has jurisdiction over the entire Potomac River in the area of the base.

Glenn Metzler has reviewed the site assessment for the former firing range, Milcon P-402 project. This site assessment was initiated because of planned construction of a new Command Building. He received results of the soil analysis at the site on September 12, 1991 via telefax. Some soils in the area investigated contained elevated levels of lead. Glenn recommended a lead cleanup level of 500mg/kg as being necessary to protect human health. This level assumes that the area is not residential and will not be used for recreational facilities (unless an artificial surface is used). It also assumes that a vegetative cover will be established. The sampling results indicated that there has been migration of the lead to the Chopawamsic wetlands. He suggests in his written comments in a letter dated September 20, 1991, that further investigation be made of the path of migration.

Glenn Metzler, Anne Field and Erica Dameron visited the former firing range, Milcon P-402 project and discussed the project with Captain Ann Roberts of MCCDC on September 24, 1991. The purpose of the visit was to assess the proximity of the wetlands and study the topography of the firing ranges. The site was inspected including the surrounding area of the proposed Command building and the stormwater discharge point for the area at the edge of the Chopawamsic wetlands. Additional information was verbally obtained about the site including the scope of the proposed project, the extent of the old firing ranges in the area, data on total lead levels in soils and sediments, and TCLP lead results for several samples. Captain Roberts stated that a decision had to be made within a week or two whether to proceed with the construction project or abandon it.

13. *Naval Surface Warfare Center, Dahlgren - Anne Field*

A site visit to Dahlgren was made by Anne Field, Jamie Walters and Erica Dameron on July 10, 1991. They met Ann Swope, Environmental Scientist at the installation.

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Details of the site visit are included in the Quarterly Report (Appendix I).

A copy of the draft Work Plan for the Remedial Investigation/Feasibility Study for the installation was received on August 26, 1991. Comments on the study have been requested to be made by the DWM no later than September 27, 1991. Anne Field contacted John Woodburn, Chesdiv Remedial Project Manager, on August 28 about providing comments on the plan.

On September 10, 1991, Anne Field received information from Bill Neal with the Department of Game and Inland Fisheries, on sensitive species found in the area of the installation. The two species of concern are the bald eagle and the pygmy shrew. She will forward this information to the installation.

Anne Field has reviewed the Draft Work Plan for the Remedial Investigation/Feasibility Study for the installation dated January, 1990 by Hazwrap Support Contractor Office, Martin Marietta Energy Systems, Inc. A letter has been drafted commenting on the proposed work plan.

Army

14. Fort A. P. Hill - Kelvin Hurdle

On August 22, 1991, Kelvin Hurdle and Erica Dameron visited the installation and toured the sites with Terry Banks, Environmental Coordinator for Fort A. P. Hill. A site visit report is included in the Quarterly Report (Appendix J).

The DERP Annual Report to Congress for fiscal 1990 listed Fort A. P. Hill with 245 sites. During the site visit, it was noted that the installation has far fewer sites than originally stated. USATHAMA Waste Site Report Updated 9/10/90 reported only 25 sites. The true number of sites is being rectified and will probably be between 35 to 40. The main reason for the discrepancy in the number of sites was the accounting of sites. For example, Fort A.P. Hill listed each tank and each firing range as a site. Other installations list firing ranges as an impact area and consider it as one site or group tanks in an area as one site. There were 108 underground and above ground tanks and 36 firing ranges listed in the

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original PA as sites. In the past two years, the installation has been very active in the UST program and many of the sites have been remediated under this program. The number of tank sites will probably be reduced to 10-12 sites and the firing impact area designated as one site. The majority of sites at this installation will not require any further action.

15. Fort Belvoir - Kelvin Hurdle

The installation was contacted by Kelvin Hurdle on July 11, 1991, concerning the site listed in the DSMOA. One site in the RI/FS stage was listed in this agreement, however, the installation personnel (Ann Engleburg) apparently has no knowledge of this site.

16. Fort Eustis - Glenn Metzler

A site visit was conducted on July 16, 1991. The seventeen sites in the DERP were inspected. Preliminary site investigations including sampling have been carried out at all the sites which include landfills, dredged spoil disposal areas, a fire training area, underground storage tanks, old Nike missile sites, an old pesticide shop, and several bodies of water that may be contaminated. A site visit report is included in the Quarterly Report (Appendix K).

Glenn Metzler has begun reviewing the documents received during the week of September 9, 1991. Joan Vandervort, Project Officer at Fort Eustis, requested comments to be submitted to the installation by October 7, 1991.

17. Fort Lee - Kelvin Hurdle

Kelvin Hurdle contacted Mr. Gary McSmith on August 8, 1991, to find out the status of the remedial investigation work at Fort Lee.

Jamie Walters received a call on August 14, 1991, from an adjacent property owner concerning a monitoring well installed by Fort Lee and possible ground water contamination in the area. The complaint was forwarded to the SWCB's Piedmont Regional Office on August 15, 1991. Kelvin Hurdle also contacted the regional office on August 14 to obtain copies of analytical results of recent sampling of the monitoring wells.

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Kelvin Hurdle has received a copy of the final Preliminary Assessment/Site Investigation report dated May 1991, for Fort Lee on August 27, 1991. He completed a review of this report.

18. Fort Pickett - Kelvin Hurdle

Kelvin Hurdle contacted Dave Foley on July 12, 1991, to discuss the sites at the installation.

Kelvin Hurdle and Erica Dameron visited the installation on August 21, 1991, and toured the sites with David Foley, Environmental Coordinator for Fort Pickett. A site visit report is included in the Quarterly Report (Appendix L). During the site visit, a number of reports were obtained including the original Installation Assessment of all sites, the PA/SI for the Fire Training Area, and the UST removal and remediation report. The currently used landfill is also undergoing closure and a closure plan report is being submitted the Division of Solid Waste.

Anne Field contacted J.R. Bell of the SWCB Piedmont Regional Office on August 26, 1991, to discuss the munitions impact area at the installation. This area is part of the target practice area and not regulated under RCRA. He was contacted since there might be water quality issues involved.

19. Fort Story - Glenn Metzler

A site visit was conducted on July 16, 1991. A total of twelve sites are currently being investigated. These include landfills, a fire training area, underground storage tanks, a Nike Missile site, and various maintenance areas. All sites were inspected during the site visit. A site visit report is included in the Quarterly Report (Appendix M).

Glenn Metzler has begun reviewing the documents received during the week of September 9, 1991. Joan Vandervort, Project Officer at Fort Eustis requested comments to be submitted to the installation by October 7, 1991.

20. Radford AAP - Kelvin Hurdle

Kelvin Hurdle and Erica Dameron visited the installation on September 18, 1991, with Bob Richardson, Environmental Coordinator at the installation, and Craig MacPhee from

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USATHAMA and toured the sites undergoing remediation. More than 30 sites were located. One site (SWMU O) is contamination from an underground oil spill. A large quantity of oil-contaminated water was flushed out of several springs that discharge along the steep scarp. Plant personnel stated that during periods of heavy rain, some oil is observed seeping from the spring at the bottom of the scarp. During the site visit, an oily film on the water from the spring was observed. A site visit report is included in the Quarterly Report (Appendix N).

21. *Woodbridge Housing Site (Harry Diamond Labs) - Anne Field*

Anne Field, Glenn Metzler and Erica Dameron visited the Woodbridge Housing site on September 24, 1991. Mr. Ed Dunn (with Fort Belvoir who is handling the UST removal for the Army) was not at the site. The locations of the UST removal were found; there were no visible signs of soil contamination. Anne Field has completed a site visit report which is included in the Quarterly Report (Appendix O).

Defense Logistics Agency

22. *Defense General Supply Center - Stephen Milhalko*

July 8, 1991; a meeting was held at DGSC to present the Proposed Plan and Draft Record of Decision (ROD) for OU1 and OU5 (Operable Units). On July 23, 1991, DWM commented on the Draft ROD for OU5. The selected remedy for OU5, trichloroethylene contaminated soil, called for excavation, biotreatment of the soil, and replacement of the treated soil. However, this remedy did not comply with State ARAR's since RCRA's interpretation of the regulations imply that the soil is contaminated with a listed waste and therefore cannot be put back in place without violating Land Disposal Restrictions (LDR). Law Environmental responded to the comments in August stating that the waste was not from a listed source, therefore LDR would not be applicable and if they could treat to background that they could re-emplac the soil.

On September 11, 1991, a meeting was held with DGSC, COE, Law Environmental, DLA, EPA and DWM to discuss the impact of DWM's comments on the OU5 Draft ROD and resolve the problems they created for the selected remedy. The results of the meeting were that Law Environmental will

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try to provide evidence that the source of the contamination was not a listed waste. They will also finalize their response to DWM's comments.

The Proposed Plan and Draft ROD for OU1 recommends limited institutional controls be established as the selected remedy for this site since RCRA action limits for the soils are not exceeded and calculated levels protective of groundwater are also not exceeded.

The Department is awaiting a final response to its comments. A meeting is currently set up for October 3, 1991, to discuss an alternative remedy for site OU5.

Air Force

23. Langley Air Force Base - Glenn Metzler

Glenn Metzler contacted Tom Wittkamp on August 8, 1991, to request a copy of the Decision Document. This document discusses the site status and future work for all sites at Langley Air Force Base. This document is in the draft stage. A list of all current sites was also requested. During the original site visit Mr. Wittkamp requested guidance on the petroleum contaminated soils. A copy of the DWM Soil Waste Guidance Document was forwarded to him.

Virginia Air National Guard

24. Richmond International Airport (VANG) - Anne Field

The new Environmental Program Manager at the installation contacted Anne Field about obtaining a copy of the DSMOA on August 29, 1991. This was sent out the same day.

Base Realignment and Closures

1. Cameron Station - Glenn Metzler

A site visit and TRC meeting took place on July 25, 1991. A site visit report is included in the Quarterly Report (Appendix P). In attendance were representatives from the State Water Control Board, Air Board, EPA, the City of Alexandria and Erica Dameron and Glenn Metzler. The station has numerous areas of concern including

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underground storage tanks, an old landfill, acid deposit areas, dredge spoils/burn pits, PCB and pesticide storage areas, a road oiling and flyash disposal area, and septic tanks. Currently, all sampling proposed in the original Work Plan has been completed. A summary of the results was presented in the TRC meeting. The major areas of concern were a leaking UST at the PX gas station, petroleum contamination in the acid deposit areas, pesticide/dioxin contaminated soil and a nearby septic system. Additional sampling and several new monitoring wells were proposed. It was requested that the proposed work be documented and a letter sent to the DWM describing the additional sampling and rationale. The estimated date for receipt of the final RI/FS report is the summer of 1992.

Glenn Metzler has received a copy of "Summary of Additional Work - Cameron Station Remedial Investigation". He sent a letter on August 12, 1991, with comments on the "Summary of Additional Work - Cameron Station Remedial Investigation" report. This letter proposed additional sampling for the RI. The letter requested notification of the results of the groundwater dioxin sampling before any further decisions were made on the necessity of additional soil borings. This letter also recommended that additional sampling and characterization of the Building 30 septic tank contents be considered.

A response (8/23/91) to Glenn Metzler's letter (8/12/91) has been received along with a copy of EPA's comments on the information presented during the TRC meeting on July 25, 1991. Salvatore Torrisi, Chief of the Base Closure Division, agreed to do additional sampling of the Building 30 septic tank sludge to determine if it is hazardous or contains dioxin as requested by Glenn in his letter. His department will contact Glenn as soon as the results are known.

2. *Defense Mapping Agency - Glenn Metzler*

Glenn Metzler, Anne Field and Erica Dameron visited the installation on September 24, 1991, and met with the project officer, Mr. Alan Freed of USATHAMA. During the site visit, Mr. Freed gave a current status report of RI/FS activities. Preliminary results of the RI indicate very low levels of contamination. A low concentration (well below the MCL) of 1,1,1-Trichloroethane was detected in one of the site wells in the initial round of

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sampling. To better delineate the contamination 3 additional wells were installed in the area of the 1,1,1-TCA hit, including one deep well. The results of groundwater sampling of these new wells are pending. The draft RI/FS report is tentatively scheduled to be available for review in early 1992. Erica Dameron has finalized the site visit report. This report is included in the Quarterly Report (Appendix Q).

**APPENDICES**

**SITE VISIT REPORTS**

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**Site Visit Report**  
**Naval Amphibious Base, Little Creek**  
**9/26/91**

On September 26, 1991, Erica Dameron, Jamie Walters, and Anne Field of the Federal Facilities Program - Superfund visited the Naval Amphibious Base, Little Creek and met with Scott Park, Lantdiv Remedial Project Manager for the installation, and Anne Marple, environmental engineer at the installation. The site visit was conducted to establish contact with the installation and to obtain information on sites undergoing remediation under the DERP and to update their status.

The "Defense Environmental Restoration Program Annual Report to Congress" listed the installation as having 17 sites. The Initial Assessment Study, dated December, 1984, identified a total of 17 potentially contaminated sites and recommended six for confirmation study. Currently there are 11 sites in the program in either the SI or the RI/FS stage.

**1. Site 4 - Reserve Center Motor Oil Disposal Area**

The site is an outdoor amphibious vehicle maintenance pad. Of concern was possible past disposal of waste oil and antifreeze onto soil and storm sewers. Investigation of the site found little contamination except one soil sample with 6000 ppm total petroleum hydrocarbons and an area where asphalt was dumped on the grass. An underground storage tank has been removed from the site through the Water Control Board's UST program. The site has been recommended for no further action.

**2. Site 5 - Buildings 9 - 11 Motor Oil Disposal**

The site includes a cable shaft that ran underground along the length of former Building 11 and an area where Marsden Matting covered the ground between Buildings 9 and 11. Building 11 has been torn down. The building's slab containing the cable shaft was left in place. The shaft is over four feet deep and contains thick, oily liquid. This material will be tested and the shaft may be removed. It was believed that waste oil and antifreeze had been disposed of by pouring it onto the Marsden Matting. The matting has been removed. It was found to be solid quarter inch steel. Soil beneath the matting area tested relatively clean with "hits" coming from oil stained areas. One additional well proposed for the area may be installed.

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3. **Site 7 - Amphibious Base Landfill**

The approximately 30 acre site operated as the only base landfill from 1962 through 1979. Wastes disposed of here include inorganics, solvents, pesticides, heavy metals, acids, bases, PCBs and mixed municipal wastes. The landfill is adjacent to Little Creek Cove. It is covered and is partially vegetated. The site is ringed by 9 ground water monitoring wells.

4. **Site 9 - Driving Range Landfill**

The site is an area along Hewitt Drive that is presently used as a driving range. In the mid-1950's through 1960, when the incinerator was in operation, this landfill was the primary disposal area for all solid waste generated on the base, including ash from the incinerator. Wastes disposed of would include some potentially hazardous substances such as PCBs, solvents, degreasers, and asbestos. Ground water borne contaminants would likely migrate toward Desert Cove, along the original path of the eastern tributary to the cove. (The tributary has been backfilled with landfill refuse and imported fill likely with a higher hydraulic conductivity than the surrounding natural materials).

The landfill area is used as a driving range. A hill constructed at the location of an old incinerator (which apparently did not operate successfully) separates this landfill area from that of site 10 discussed below.

5. **Site 10 - Sewage Treatment Plant Area Landfills**

The site consists of several contiguous areas that comprise a total of about 18.5 acres. An estimated 46,500 cubic yards of waste was disposed of here from 1949 to 1952. Wastes of concern include PCBs from capacitors and transformers, pesticide residues and containers, fuels, solvents, and asbestos. Drainage during the disposal period was into an arm of Desert Cove which was filled in during the early 1950's.

The landfill boundary follows a treeline relatively closely down to 11th street and back to the second ball field. Soil sampling in the ballfield has been recommended to confirm that use of the recreational area does not pose a threat to human health.

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6. **Site 11 - School of Music Plating Shop**

The site is a small plating shop at Building 3602. It was used for electroplating musical instruments for the school of music between 1964 and 1974. Wastewater from the plating operation containing silver cyanide, copper cyanide, brite dip (chromic acid), nickel plating baths, acids, lacquer, and lacquer stripper was poured down a drain that went outside to a dry well. The dry well apparently contained limestone for treatment of the wastewater before discharge to the storm sewer. There are three monitoring wells around the dry well. Organics have been detected in a well and some metals in soil in the area. Construction drawings of the dry well show it to have a concrete bottom.

7. **Site 12 - Exchange Laundry Waste Storage Area**

This site is the location of a waste storage area for the former Base Exchange Laundry. From 1973 to 1978, the Laundry stored PCE, soap, sizing, and dye wastes in this area. Reportedly, some of the waste was disposed of into a storm sewer drain adjacent to the storage area. The sewer discharges into a drainage canal. (The canal flows away from Lake Bradford, not toward it, as reported in the Initial Assessment Report). Remapping of storm sewers in the area have indicated that the line leading from the laundry is not where originally thought. It actually runs under the parking lot across the road from the site to the drainage canal. There are monitoring wells in the area.

8. **Site 13 - Public Works Compound Pentachlorophenol (PCP) Dip Tank and Wash Rack**

The site includes the location of a pentachlorophenol (PCP) dip tank, the yard for where treated lumber was dried, the Metal Trades Shop wash rack, and an open lot immediately north of the wash rack. The areas are included together because of their proximity.

From the early 1960's until 1974, a 300 to 400 gallon dip tank behind Building 3165E was used to treat wood with PCP. The tank was emptied and dismantled in 1982. According to the Initial Assessment (IA), the tank was initially cleaned out every six month but received little maintenance near the end of its use. Approximately 10 to 15 gallons of PCP was estimated to have dripped from the treated wood onto the ground over the fifteen years of

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the tank's operation. The ground has since been covered with asphalt.

9. **Site 15 - PCB Spill, Fire Station #1**

The site, behind Fire Station #1, is the area around a capacitor pole where dielectric fluid leaked when the capacitor was struck by lightning in the 1980's. Less than five gallons of oil is estimated to have leaked. Contaminated soil beneath the capacitor pole has been removed. Tests of soil remaining have found less than 10 ppm PCBs and the site will be recommended for no further action.

10. **Site 16 - PCB Capacitator Spill, Pole No. 425**

The site is the area around capacitor pole No. 425. The capacitor lost dielectric fluid, estimated to be less than 5 gallons, when it was struck by lightning in the early 1980's. PCBs have been found in soil around the pole in the 500 to 800 ppm range. A campground was recently constructed in this area. A trench to carry an electrical line from the pole to the campground cut through the area of contamination. The area around the pole and extending a short distance along the line of the trench is roped off and clearly marked as being PCB-contaminated. The site is at the SI stage. Soil sampling is planned to determine if the recent excavation extended the area of contamination.

11. **Site 17 - Building 1256 Motor Oil Disposal Area.**

The site is inside the fence of the Shore Intermediate Maintenance Activity Transportation Shop compound near Building 1256. Waste motor oil is the contaminant of concern. The IA report estimated that 3,600 gallons of oil were disposed of here by disposal to the ground and through runoff from the storage shed apron. This estimate may be high. Wells along the pier front here have been tested for TPH. Monitoring in the area has not found anything significant and the site is being recommended for no further action. A set of wells being installed as a part of the underground storage tank program will be used to determine the background levels of TPH.

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Site Visit Report  
 Naval Amphibious Base  
 Little Creek

Summary

<u>Site Description</u>	<u># of Sites</u>	<u>Status</u>
1. Site 4 - Reserve Center Motor Oil Disposal Area	1	SI
2. Site 5 - Buildings 9-11 Motor Oil Disposal.	1	SI
3. Site 7 - Amphibious Base Landfill	1	RI/FS
4. Site 9 - Driving Range Landfill	1	RI/FS
5. Site 10 - Sewage Treatment Plant Area Landfills	1	RI/FS
6. Site 11 - School of Music Plating Shop	1	RI/FS
7. Site 12 - Exchange Laundry Waste Storage Area	1	RI/FS
8. Site 13 - Public Works Compound Pentachlorophenol (PCP) Dip Tank and Wash Rack	1	RI/FS
9. Site 15 - PCB Spill, Fire Station #1	1	SI
10. Site 16 - PCB Capacitator Spill, Pole No. 425	1	SI
11. Site 17 - Building 1256 Motor Oil Disposal	1	SI

Total Number of Sites - 11

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**Site Visit Report**  
**Naval Weapons Station, Yorktown**  
 8/20/91

On August 20, 1991, Erica Dameron, Keith Vida, and Anne Field from the Federal Facilities Program - Superfund visited the Naval Weapons Station in Yorktown and met with Brenda Norton, Lantdiv Remedial Project Manager for the installation; Carolyn Neill, with the installation's environmental section, and Nina Johnson, new head of the installation's environmental section. The site visit was conducted to establish contact with the installation and to obtain information on sites undergoing remediation under the DERP and to update their status.

The "Defense Environmental Restoration Program Annual Report to Congress" lists the installation as having 20 sites. The Initial Assessment Study, dated July 1984, identified a total of 19 potentially contaminated sites and recommended 15 for confirmation study. A July 1, 1991, Remedial Investigation Interim Report prepared by Dames and Moore and revised by Versar Inc. discussed results of sampling at these sites. An additional site, Site 21, was discovered after the confirmation study sampling. This site, is an open disposal area where a large number of batteries, drums and other metal containers were disposed of down a hillside directly above a tributary to Felgates Creek.

All 15 of the confirmation study sites are now preparing workplans for the RI/FS stage. A work plan for the RI/FS which incorporates revisions that came from a 1989 TRC has been prepared. This work plan will be sent to TRC members for review before the work actually begins. The Battery/Drum Disposal Area is scheduled to undergo a PA/SI soon to bring it up to the same RI/FS stage as the other sites. (A report on the installation done by NUS identified a site 20 which involved spilling of Otto fuel. This is an active site and is not to be included in the DERP even though it was assigned a number in the DERP site sequence).

1. **Site 1 - Dudley Road Landfill**

The site is an approximately 10-acre landfill which was used from about 1965 to 1979 for general disposal of waste. (One area received plastic lens grinding waste until 1981 under a temporary permit from the State Health Department). Wastes disposed of at the site are reported to have included empty oil, paint, and solvent containers; asbestos from insulation on steam piping; construction rubble; household appliances; explosives-contaminated carbon; electrical wires and waste oil.

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Estimated quantity of waste disposed of was 17 tons per year.

The site is primarily covered with scrub grasses and small bushes and trees. Surface water drainage from the landfill is to Indian Field Creek and a small tributary stream. (There is a marshy, wet area close to the disposal area, on the left side, entering from Dudley Road).

When the landfill stopped operating it was covered with about 2 feet of cover from the immediate area and graded and seeded.

According to the Preliminary Assessment Report, the landfill began operation as a borrow pit in the early 1950's and was then used as an unsupervised landfill. The borrow pit was dug to about 20 feet. The groundwater table was reportedly was not reached during borrow pit operation.

2. **Site 2 - Turkey Road Landfill**

This five-acre landfill, located east of Turkey Road in a wetland adjacent to the south fork of Felgates Creek, began operating sometime in the 1940's and continued until 1981. Wastes disposed of at the site reportedly included mercury and zinc carbon batteries; tree stumps and limbs; construction rubble; missile hardware (wings, fins, para packs); electrical devices and unidentified types of drums or tanks. Waste quantities were estimated to be 8 tons per year.

According to the Interim Report, the site appears to have been created by pushing debris into the wetland and filling a low-lying area. The site is bounded by stream channels on the eastern and western sides that join and form the marshy area surrounding the site to the north. The site is covered with scrub brush and grasses and a few small trees. A two-foot cover was put on the fill but some material such as debris, drums, and mine casings is visible at the edge of the fill and several drums have been observed in the woods.

3. **Site 3 - Group 16 Magazine Landfill**

The site is a 2-acre landfill located in a wooded area behind the Group 16 magazines. It operated from 1940 to 1970. Wastes disposed of included solvents (TCE, tri-

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chloroethane, methylene chloride), sludge from boiler cleaning operations, grease trap wastes, Imhoff tank skimmings containing oil and grease. An estimated 3 tons of waste were disposed of per year. The site boundaries are not well defined. The site is situated adjacent to the upper reach of Indian Field Creek. Surface runoff from the site is to small tributaries to Indian Field Creek and to the creek itself. (A drainage channel to Indian Field Creek separates Site 3 from Site 1).

According to the Remedial Investigation Interim Report, field observations indicate that the landfill was created by pushing debris over a natural embankment, though the fill material does not appear to have entered the natural channel of Indian Field Creek. During the site visit a few pieces of metal were noted at the disposal site and a few drum in the woods.

4. **Site 4 - Burning Pad Residue Landfill**

This approximately four acre landfill is located adjacent to the explosives burning facility south of West Road. It was used from 1940 to around 1975 and received about 17 tons of waste per year during this approximately 35 period. Burning pad residues (possibly containing aluminum, RDX, TNT, 2,4-DNT); batteries from weapons (types unknown); fly ash from coal-fired boilers; mine casings; electrical equipment; transformers and tree stumps were reportedly buried at this site.

The site is primarily a cleared area covered with grass; the disposal area apparently extended to the tree line around the site. It is now used for foliage burning.

A marsh along the eastern branch of Felgates Creek receives the surface runoff from the site.

5. **Site 5 - Surplus Transformer Storage Area**

The site is a fenced area of about 1,000 square feet at the south side of Building 76 that has been used as a storage area for surplus transformers, some of which contained PCBs. An estimated 300 pounds of PCB wastes were reported to have leaked from the transformers.

In December, 1982, contaminated soil was removed from the site; there are, however, no records on the depth to which the removal went.

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The area is surrounded by a chain link fence; the gate is locked. There are still transformers at the site but according to the Initial Assessment Report, PCB-contaminated transformers are no longer stored here. The transformers rest on a concrete pad. According to the facility representative, the PCB-containing transformers also rested on this pad. Past testing did not find that PCBs had migrated outside of the fenced area.

Surface drainage in the vicinity of the site is north-westward toward a tributary that flows toward Stony Point and the York River.

Planned sampling includes the pad and soil at the level of the previous removal.

**6. Site 6 - Explosives-Contaminated Wastewater Impoundment**

Site 6 is a three-acre area that served as an impoundment to settle solids in the wastewater discharge from the explosives reclamation facilities at Building 109 and from the loading operations at Building 110. The site was used from 1942 until 1975. The wastewaters discharged to the site contained TNT, RDX, TCE, trichloroethane, and cyclohexanone.

The impoundment was created by construction of an earthen dam across a small tributary of Felgates Creek. The impoundment looks like a wetlands area with marshy type vegetation growing in it and a muddy bottom. The impounded area discharges through a concrete spillway into the tributary stream which is surrounded by marsh/wetlands including tidal mud flats. Flow from the impoundment and the tributary is northwestward toward Felgates Creek.

**7. Site 7 - Plant 3 Explosives-Contaminated Wastewater Discharge Area**

Site 7, southwest of Building 375, received explosives-contaminated wastewater from Loading Plant 3 between 1945 and 1975. Wastewater discharge contained TNT and RDX generated in Plant 3, TCE and cyclohexane. The site is adjacent to wetlands along Felgates Creek.

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8. **Site 8 - NEDED Explosives-Contaminated Wastewater Discharge Area**

Site 8 is a discharge area that received wastewater from the Naval Explosives Development Engineering Department (NEDED) complex (Building No. 456) from 1940 to 1975. The wastewater contained unspecified solvents, spent/neutralized acids, explosives residues, trichloroethylene, acetone, and cyclohexanone. The discharge point was at the bottom of a steep, 20-foot drop off from the road in a heavily wooded area. Felgates Creek and marshlands surrounding it were visible in an open area beyond the trees.

9. **Site 9 - Plant 1 Explosive Contaminated Wastewater Discharge Drainage Area**

The site was a drainage way for Plant 1 (Building 10) explosives-contaminated wastewater and possibly substantial quantities of organic solvents reportedly from the late 1930's until 1975. This natural drainage way leads to Lee Pond which may have served as a settling basin for particulates in the wastewater. Lee Pond flows to Felgates Creek. TNT, RDX, and HMX may be present in the surface sediments in the drainage way, or in the bottom sediments of Lee Pond. Solvents may also have been discharged from Plant 1 with the explosives washwater. During its 40-year period of operation, 5200 pounds of TNT and RDX and 1600 pounds of HMX may have been discharged to the drainageway.

During the site visit we noted from the road that some railroad tracks were being pulled up and some soil had been moved in this area. The facility representative explained that structures in the area which are no longer used were planned to be dismantled. However, because the effect of this work on any mitigation was not known, the environmental section had requested that it be held up.

10. **Site 11 - Abandoned Explosives Burning Pits**

The approximately .5 acre site was the location of the explosives burning pits and was used from 1930 to 1950 for burning ordnance and ordnance-contaminated wastes. Ashes and residues from the open burning of TNT, RDX, and HMX; contaminated wastes; and contaminated sludges are thought to be present. The Preliminary Assessment Report stated that residuals containing heavy metals and explosives may be buried in the pits. An estimated 200

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pounds of waste may have been deposited at the site. The pits have been filled in.

The area is wooded and the site boundaries are not well defined. Surface water drainage is southeastward along a subtle drainage swale that is the headwaters of a small tributary to Indian Field Creek.

11. **Site 12 - Barracks Road Landfill**

Site 12 covers 2 to 3 acres. It was in operation from about 1925 to the mid-1960's. The site appears to have been created by filling a portion of a ravine and the southern edge abuts the drainage channel leading to Ballard Creek. The site is relatively flat, sloping toward the channel. It is covered with scrub brush and grass and there is little evidence of the former landfilling operations. Immediately north of the fill area is the old incinerator site and a number of metal dumpsters used for general refuse collection.

Waste reported to have been disposed of at this landfill included mostly garbage, refuse, and scrap wood and some explosives-contaminated packaging. Since it was the predecessor of the Dudley Road Landfill, is likely received waste similar to that disposed of at this site, including solvents. An estimated 35 tons of waste were disposed of each year at this landfill.

12. **Site 16 - West Road Landfill**

Site 16 is located adjacent to West Road. It is approximately 300 feet wide and 1,200 feet long, and about 8 acres total. It operated from the 1950's to the early 1960's. The site is part wooded and part grass covered. Landfill boundaries are not evident. Wastes reportedly disposed of at the site include dry carbon batteries, banding materials, pressure transmitting fluid (possibly containing PCBs), unknown types of chemicals, and 55-gallon drums of unknown contents. More than 100 tons of waste are estimated to have been buried at the site. The landfill is upgradient of a marsh adjacent to Felgates Creek. The report indicates that surface water flows southwestward via gullies toward the wetlands along the Creek.

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13. **Site 17 - Holm Road Landfill**

The site is a 250 by 100 yard landfill which operated for about 10 years from some time in the 1950's to the 1960's. Wastes reportedly disposed of at the site included acid batteries from underwater weapons, hydraulic fluids (Dolconik) from the demilling of torpedoes, drums from the Public Works Department and ordnance production shop, and scrap metal. Waste quantities were estimated to be about 6 tons per year and could include approximately 200 drums and several thousand batteries. Vegetative cover consists of grasses and scrub brush. Surface water drainage is predominantly northward toward small tributaries of Indian Field Creek.

14. **Site 18 - Building 476 Discharges**

The site is an unlined drainage ditch north of Building 476 which received battery acid discharges from the building from the 1940's through the 1960's. The discharges are reported to have contained mercury, nickel, cadmium, and lead. An estimated 100 to 200 pounds of metals may have been discharged to the ditch during the 20 year period. The ditch is in a wooded area and flows toward an intermittent stream that drains into Lee Pond. Building 746 is on one side of the road and the ditch immediately on the other. There seemed to be quite a bit of water at the beginning of this ditch and the facility representative indicated that other possible sources of discharge from Building 476 into the would be looked for in the upcoming work. There was also some discussion of the need for water column testing during the RI. This will be carefully evaluated when the work plan is reviewed.

15. **Site 19 - Conveyor Belt Soils at Building 10**

TNT-contaminated soils have been reported around the conveyor belt between Buildings 10 and 98. The conveyor belt is about 450 feet long and carried TNT flakes, some of which undoubtedly spilled onto the belt and then the ground below. Some soil was removed in 1973-74 but subsequent testing found TNT and RDX in concentrations as high as 17,730 and 37 ppm, respectively. There is a concrete drainage way that runs beneath (and perpendicular to) the conveyor belt at one point. Water in this drain has reportedly been reddish at times but when tested was not found to contain explosives.

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Surface water flow is not well defined at this site but shallow swales suggest movement toward Lee Pond. However, because of the very flat topography, surface water runoff may have gone along the railroad tracks and Bollman Road and then infiltrated the relatively permeable soil suspected at the site and discharged to ground water. Ground water flow is likely toward Lee Pond.

16. **Site 21 - Battery/Drum Disposal Area**

The site is an open dump along a hillside in the woods slightly east of Site 4, the burning pad residue landfill. It is about 100 feet off of West Road. The site was discovered in the fall of 1990. On the northwestern part of the hill a very large number of batteries (several thousand) were dumped down the hillside. The actual number and the extent of contamination is unknown. The batteries are approximately one foot in diameter and appear to be 1950's vintage. They are partially buried. Some of the batteries were still in packaging material. In the southeastern part of the hillside there is a drum disposal area. Several hundred drums from one gallon to 55 gallons size were visible and severely corroded. It appeared that many of the drums might have been empty at the time they were disposed of. Labels on some 35-gallon containers indicated that they originally contained dry cleaning fluid; dates ranged from 1955 to 1959.

The headwaters of Felgates Creek run along the bottom of the hill.

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Site Visit Report  
 Naval Weapons Station, Yorktown  
 8/20/91

Summary

Site Description	# of Sites	Status
1. Site 1 - Dudley Road Landfill	1	PA/SI
2. Site 2 - Turkey Road Landfill	1	PA/SI
3. Site 3 - Group 16 Magazine Landfill	1	PA/SI
4. Site 4 - Burning Pad Residue Landfill	1	PA/SI
5. Site 5 - Surplus Transformer Storage Area	1	PA/SI
6. Site 6 - Explosives Contaminated Wastewater Impoundment	1	PA/SI
7. Site 7 - Plant 3 Explosives Contaminated Wastewater	1	PA/SI
8. Site 8 - NEDED Explosives Contaminated Wasterwater Discharge Area	1	PA/SI
9. Site 9 - Plant 1 Explosive Contaminated Wastewater Discharge Drainage Area	1	RI/FS
10. Site 11 - Abandoned Explosives Burning Pit	1	RI/FS
11. Site 12 - Barracks Road Landfill	1	RI/FS

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12.	Site 16 - West Road Landfill	1	RI/FS
13.	Site 17 - Holm Road Landfill	1	RI/FS
14.	Site 18 - Building 476 Discharge	1	RI/FS

Summary - Continued

15.	Site 19 - Conveyor Belt Soils at Building 10	1	RI/FS
16.	Site 21 - Battery/Drum Disposal Area	1	PA/SI

Total Number of Sites - 21

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**Site Visit Report  
 Naval Radio Station Driver  
 8/12/91**

On August 12, 1991, Anne Field and Erica Dameron from the Federal Facilities Program - Superfund, visited the Naval Radio Station Driver and met with Kenneth H. Walker, Remedial Project Manager of the Installation Restoration Program, to obtain more information on the sites undergoing remediation and updating their status and to tour the sites undergoing assessment and remediation.

According to the "Defense Environmental Restoration Program Annual Report to Congress for Fiscal Year 1990", Naval Radio Station Driver is listed as having 8 sites. Preliminary assessment (PA) was completed at all 8 sites with 5 sites not requiring any further action.

During the site visit and tour the following information was available about the sites and their current status:

**1. Site 1 - Landfill Near Oyster House Creek**

This landfill operated from 1950's to 1972. The landfill was used for disposal of housing and military wastes. The waste types included solvents, pesticides, acids, bases, and mixed municipal waste. The PA and the confirmation study have been completed.

**2. Site 5 - PCB Spill near Starr Creek**

Five discarded transformers containing PCB's were found on the ground in a marshy area along an unnamed tributary to Starr Creek during the Initial Assessment Study (IAS) investigation (July 25-27, 1983). The transformers were removed and disposed of properly. Soil sampling in the area indicated levels of PCBs from 1 to 15,000 ppm. Soil PCB concentrations in the follow-up (Confirmation) study ranged up to 27,000 ppm. The RI/FS has been initiated with the draft work plan submitted November 1990 and sampling for the RI to begin August 1991.

**3. Site 8 - Service Station Gasoline Leak**

Two 4,500 gallon buried metal tanks containing automobile gasoline were observed to be leaking in 1974 and were replaced. The new tanks were filled with sand and abandoned in place. These tanks will be closed under the UST regulations. PA/SI has been completed.

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Site Visit Report  
Naval Radio Station Driver  
8/12/91

Summary

<u>Site Description</u>	<u># of Sites</u>	<u>Status</u>
1. Site 1 - Landfill Near Oyster House Creek Landfill	1	PA/SI completed.
2. Site 5 - PCB Spill Near Star Creek	1	PA/SI completed. RI/FS draft work plan.
3. Site 8 - Service Station Gasoline Leak	1	PA/SI completed.

Total Number of Sites - 3

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**Site Visit Report**  
**Naval Supply Center, Yorktown Fuels**  
**9/11/91**

On September 11, 1991, Erica Dameron, Jamie Walters, and Anne Field from the Federal Facilities Program - Superfund visited the Naval Supply Center, Yorktown Fuels and met with Brenda Norton, Remedial Project Manager, Lantdiv, and Bob Vandevender, Fuel Farm Manager. The purpose of the visit was to establish contact with the installation and to obtain information on sites undergoing remediation under the DERP and to update their status.

The Defense Environmental Restoration Program Annual Report to Congress" lists the installation as having 20 sites. The Initial Assessment Study, dated February, 1984, identified 20 potentially contaminated sites and concluded that sixteen warranted confirmation studies (sites 13, a sludge farm; 14-26 all tank bottom disposal areas; 27 a fuel pit at building YK 215; and 31 Abandoned NSFO Tanks). These sites were the subject of a Remedial Investigation Interim Report, prepared by Dames & Moore and dated February, 1991; and a Draft Final Work Plan for a RI/FS prepared by Environmental Science & Engineering, Inc. and dated July 1991. Copies of these reports were obtained during the site visit. Sites 27 and 31 are now in the UST program and are no longer in the DERP. The fourteen other sites are now in the RI/FS stage. The Navy has negotiated a contract for the work and plans to award it soon. Actual field work might begin in February 1992.

**1. Site 13 - Sludge Farm**

The site is an area of about three acres where sludge from three abandoned NSFO (Navy Special Fuel Oil) tanks was applied as an experimental method for disposal. The operation began in October 1980 and ended in 1981. Approximately 1,000 cubic yards of oil sludge were applied. Corn and wheat crops were then planted unsuccessfully on the site. The area has now solidified and there is some vegetation growth. Dark, crumbly solid material with a slight petroleum odor still lies on the ground surface in spots.

**2. Sites 14-26 - Tank Bottoms Disposal Areas**

These sites are small areas, approximately 15 to 30 feet in diameter and 6 feet deep, where residues from tank cleanings were disposed. The sites are associated with the circular tanks in the southern portion of the installation. Tanks were cleaned at the time of fuel

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changes. The cleanings were buried in pits close to the cleaned out tank. About 1,960 to 2,830 cubic feet of sludge was disposed of from each tank per cleaning. The Initial Assessment report contains a list of dates of tank cleaning from the 1950's until 1983.

**Summary**

<u>Site Description</u>	<u>No. of Sites</u>	<u>Status</u>
1. Site 13 - Sludge Farm	1	RI/FS
2. Sites 14-26 - Tank Bottoms Disposal Areas	13	RI/FS

**Total No. of Sites - 14**

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**Site Visit Report**  
**Naval Supply Center, Cheatham Annex**  
**9/11/91**

On September 11, 1991, Erica Dameron, Jamie Walters, and Anne Field from the Federal Facilities Program - Superfund, visited the Naval Supply Center, Cheatham Annex and met with Brenda Norton, Remedial Project Manager, Lantdiv, and Chick Salyers with the installation's Environment Management office. The purpose of the visit was to establish contact with the installation and to obtain information on sites undergoing remediation under the DERP and to update their status.

The Defense Environmental Restoration Program Annual Report to Congress" lists the installation as having 12 sites. The Initial Assessment Study, dated February, 1984, identified 12 potentially contaminated sites and concluded that four warranted confirmation studies (sites 1, 9, 10 and 11). These site were the subject of a Remedial Investigation Interim Report, prepared by Dames & Moore and dated February, 1991; and a Draft Final Work Plan for RI/FS prepared by Environmental Science & Engineering, Inc. and dated July 1991. Copies of these reports were obtained during the site visit. Site 9, a former transformer storage area is being recommended for no further action; the three other sites are now in the RI/FS stage. The Navy has a proposal from the contractor; the contract now needs to be negotiated and awarded possibly in mid to late October 1991.

**1. Site 1 - Landfill Near Incinerator**

The site is an approximately two-acre landfill and is located along the York River. This landfill was used as a disposal area for incinerator burning residues from 1942 until 1951 and as a general landfill from 1951 until 1972. According to the Initial Assessment report a variety of wastes including empty paint and paint thinner cans, cartons of ether and other unspecified drugs which were burned, railroad ties, tar paper, sawdust, rags, concrete and lumber were disposed of in the landfill. Since 1972, occasional disposal of masonry and wood took place until the landfill's closure in 1981. Approximately 34,500 tons of domestic/industrial/commercial solid waste were buried in the landfill. Several monitoring wells have been installed at this site in the past.

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The landfill area is covered primarily with grass. There is a wooded area about 20 feet wide between the landfill and the York River. From this wooded area, the bank drops down very steeply to the river.

2. **Site 9 - Transformer Storage Area**

The site is an area of about 70 by 100 feet at the northwest corner of Building CAD 16. It was reportedly used from 1973 to 1980 for storage of transformers awaiting repair or disposal. The volume of PCB oil stored at the site or the amount of oil that might have leaked is not known. After 1980, the site was regraded and covered with gravel. Thirteen soil samples were tested for PCBs in 1986; all were below 1 ppm. The interim report recommended no further action at this site.

3. **Site 10 - Decontamination Agent Disposal Area**

The site is located in the southernmost part of the old duPont munitions plant. An estimated 75 to 100 gallons of decontamination agent (DS-2) were reportedly buried at the site. (DS-2 contains 70% diethylene triamine, 28% ethylene glycol monomethyl ether, and 2% sodium hydroxide). The disposal area is overgrown with brush. The material was not containerized when disposed of and exact disposal locations are unknown. The area will be surveyed with ground penetrating radar to try to locate the site of the buried waste.

4. **Site 11 - Bone Yard**

The site encompasses about 8 acres south of Antrim Road. It is reported to have been used from 1940 to 1978. Waste thought to have been disposed of include oil, asphalt, and gasoline. The facility representative said that the area served as a scrap collection area for public works. Some drums have previously been removed from the site. Material visible at the site includes old fencing, scrap metal, and telephone poles. In one area of the site an asphalt vat and drums still containing old asphalt were sitting.

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Site Visit Report  
Naval Supply Center, Cheatham Annex  
9/11/91

Summary

<u>Site Description</u>	<u>No. of Sites</u>	<u>Status</u>
1. Site 1 - Landfill Near Incinerator	1	RI/FS
2. Site 9 -Transformer Storage Area	1	No Further Action Recommended
3. Site 10 - Decontamination Agent Disposal Area	1	RI/FS
4. Site 11 - Bone Yard	1	RI/FS

Total Number of Sites - 4

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Site Visit Report  
Norfolk Naval Base  
7/31/91

On July 31, 1991, Anne Field, Jamie Walters and Erica Dameron from the Federal Facilities Program - Superfund, visited the Norfolk Naval Base and met with Andrew Kissel, Section Head of the Installation Restoration Program; Kenneth H. Walker, Remedial Project Manager; and Sharon Waligora, Site Remediation Officer. This initial site visit to Norfolk Naval Base was conducted to establish contact with the Installation Representatives, to obtain information on the sites undergoing remediation updating their status and to tour the sites undergoing assessment and remediation.

According to the "Defense Environmental Restoration Program Annual Report to Congress for Fiscal Year 1990", Norfolk Naval Base is listed as having 20 sites. Preliminary assessment (PA) was completed at 18 sites with 12 sites not requiring any further action and two sites not accounted for in the PA. Two additional sites have been added since the PA and another two sites are scheduled to undergo a PA.

During the site visit and tour the following information was available about the sites and their current status:

1. Site 1 - Camp Allen Landfill

This landfill operated from 1940's to 1974. Wastes land disposed of in the area included municipal wastes, ash from solid waste incinerator, coal fly and bottom ash, metals plating sludge, parts cleaning and paint stripping sludges, overage chemicals, chlorinated organic solvents, waste oil, acids, caustics, pesticides, paint and paint thinners, asbestos, scrap metal, and construction and demolition debris. The PA and the confirmation study has been completed. The RI/FS has been initiated. Ground-water monitoring wells have been installed and soil sampling conducted. Contaminants have been found in several monitoring wells. Thirty-three nearby residential wells were tested, one 20 foot deep well had TCE level of 10ppb. However, the source of contamination is not believed to have come from the landfill. Plans have been made to test a deep industrial well of Global Technology Systems. Twenty residential wells have been retested. The results are not yet available. The landfill is divided into two sections (A and B). Accesses to section B will be restricted because of its proximity to a school and a pond behind the landfill.

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Sampling of the surface water and sediments of the pond has also been conducted.

2. **Site 2 - Slag Pile**

Slag Pile is the result of aluminum smelting operations conducted in the 1950's and 1960's. The PA/SI has been completed. No immediate action is planned. Confirmation sampling is planned in the next year.

3. **Site 3 - Q Area Drum Storage Yard**

This yard was used for storage primarily of drums of product chemicals. However, drums from spilled petroleum products, chlorinated organic solvents, flammable liquids, and paint thinners, containerized contaminated soil and contaminated water were stored in this storage yard. Outdated drums of toluene, naphtha, methyl ethyl ketone, lubricating oils, trichloromethane, and cleaning compounds were also stored here. There were visible stains on the soil throughout the storage area. PA/SI has been completed. The RI/FS is in draft form. Once it is reviewed by the Installation, it will be submitted to the DWM for review and comment at a TRC meeting.

4. **Site 4 - Transformer Storage Area**

This area was used to store transformers from 1940's to 1978. Transformer oil was reportedly drained from the out-of-service transformers onto the ground. Visible stains of the soil were noted. The PA/SI has been completed, the RI/FS is completed and will be sent out for review. Soil and groundwater sampling have occurred and have indicated the presence of PCBs. The level of remediation for PCBs is proposed at 10ppm. The area is presently a restricted area. RD/RA has been drafted. Remediation will be initiated by end of FY91 with the issuance of a construction contract by September 30, 1991. A TRC is planned for the near future proposing the alternatives for remediation. The RD proposal includes solvent extraction, incineration or landfill disposal. It is estimated that the cost for incineration is approximately 3.5 million dollars and landfill disposal at 1.5 million dollars. The RA is expected to be conducted in December 1991.

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5. **Site 5 - Pesticide Disposal Shop**

Approximately 100 gallons per week of rinse water from equipment contaminated with pesticides and diluted or non-usable pesticides were discharge into a french drain behind the shop during the 1960's and 1970's. The pesticides included chlordane, malathion and DDT. PA/SI has been completed and an interim RI drafted. There are no immediate plans for this site. However, in FY92, additional sampling is planned to determine if any other pathways are present according to the new PA guidelines.

6. **Site 6 - CD Landfill**

This landfill consists of two adjacent areas. The eastern portion was used from 1974 to 1981 for the disposal of cadmium dust from sandblasting operations. The western portion was used from 1979 to 1987 for the disposal of demolition and construction debris. This latter portion operated under a solid waste management permit from DWM. The permitted portion of the landfill is scheduled for closure under the Virginia Solid Waste Management Regulations in the near future. PA/SI has been completed and an interim RI drafted. Some groundwater monitoring wells have been installed.

7. **Site 7 - Building V60/V90**

A PCB transformer fire in this building led to contamination of this building with PCBs and Dioxins. This building was also contaminated with radium, asbestos, beryllium and heavy metals. Demolition of the buildings and removal of all debris have been completed. The estimated cost of this removal was between 18 to 20 million dollars. No further action is planned. A new structure is scheduled to be built on part of the original site in the near future.

8. **Building LP-20**

The 90,000 ft. facility was used in aircraft engine overhaul and maintenance. It also contained a metal plating shop. Wells installed on west side of Bousch Creek indicated groundwater contamination with chlorinated solvents. The building is a potential source of the groundwater contamination. Five new monitoring wells have been installed. PA/SI has been completed; interim RI drafted.

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9. **Salvage Yard**

This is a newly identified site. It is located near the Camp Allen landfill area. It is used as staging area for metal and other scrap recycling, reuse or disposal. The salvage yard is a 13-acre fenced-off area with a partial soil/partial asphalt base. The staging area handled the following material: non-metallic scrap, used batteries, PCB transformers oils and capacitors, waste oil, outdated chemicals received from off-site, and waste acetylene cylinders. A PA/SI is planned in FY92.

10. **W-316 Building PCB Waste Work Area**

This is a newly identified site. This area is used for the storage of PCB oil and debris from W-316 Indoor Drummed PCB Oil Storage Facility or W-316 PCB Debris Storage Area to be picked up by the facility contractor and transported off-site for treatment and disposal. A PA/SI is planned in FY92.

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**Summary**

<u>Site Description</u>	<u># of Sites</u>	<u>Status</u>
1. Site 1 - Camp Allen	1	PA/SI completed. RI/FS initiated.
2. Site 2 - Slag Pile	1	PA/SI completed. Confirmation sampling planned, possibly in FY92.
3. Site 3 - Q Area Drum Storage	1	PA/SI completed. RI/FS draft completed.
4. Site 4 - Transformer Storage Area	1	PA/SI completed. RI/FS draft completed. RD/RA contract may be awarded in FY92.
5. Site 5 - Pesticide Disposal Shop	1	PA/SI completed. No further action scheduled, addi- tional sampling possibly in FY92.
6. Site 6 - CD Landfill	1	PA/SI completed. Interim RI in draft.
7. Site 7 - Building V60/V90	1	RD/RA completed with the complete demolition of the buildings.
8. Building LP-20	1	PA/SI completed Interim RI in draft.
9. Salvage Yard	1	PA/SI planned for FY92.
10. W-316 PCB Waste Work Area Storage Area	1	PA/SI planned for FY92.
<b>Total Number of Sites -</b>	<b>10</b>	

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**Site Visit Report  
Fleet Combat Training Center, Dam Neck  
7/24/91**

On July 24, 1991, Erica Dameron, Jamie Walters and Anne Field, from the Federal Facilities Program--Superfund, attended a Technical Review Committee Meeting (TRC) concerning the "Draft Final Site Inspection Report" on two sites at the Fleet Combat Training Center, Dam Neck.

The "Defense Environmental Restoration Program Annual Report to Congress" lists the installation as having six sites included in the DERP. The Initial Assessment had identified six sites. Four of these six sites were investigated in 1986 and results were discussed at a TRC held in January, 1989. Two of these sites--the Former Transformer Storage Area (Site 2) and the Public Works Disposal Area (Site 5) were not recommended for further action because of the low threats to human health and the environment that they posed. The Regulus Avenue Landfill (Site 1) and the Former Pesticide Shop (Site 6) were recommended for further testing.

**1. Site 1 - Regulus Avenue Landfill**

The 10-acre, unlined landfill is located at the southern end of the base. It was operational from 1952 to 1976. An estimated 90,000 tons of waste were disposed of in the landfill by direct burial or burial after burning. The landfill was closed with a four-foot cover of clean fill. A mixture of grasses, shrubs and trees grow on the site.

**2. Site 6 - Former Pesticide Shop**

The former pesticide shop, located on the Public Works Department Compound, operated from 1944 to 1978. During this time, equipment and containers were washed on an 8 by 8 foot gravel pad behind the shop. The rinse water, which contained a variety of pesticides including chlorinated hydrocarbon compounds, was poured directly onto the pad. The Initial Assessment Report estimated that 2,000 gallons of pesticides had been mixed during this time. Pesticides used included DDT, DDD, 2,4-D, and Silvex. A new pesticide shop that covers the location of the rinsing pad was built in 1978.

During the TRC meeting representatives from Ebasco, consultants for the facility, presented the results of their sampling at the two sites and recommendations for further future action.

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At the landfill ground water samples from nine wells were collected and analyzed. Lead was detected in an upgradient well. Mercury was found in unfiltered samples in both up and down gradient wells but below the level of detection in filtered samples. Volatile organics were low. Four surface water samples were collected from a drainage canal in the vicinity of the landfill. Mercury in three samples exceeded the EPA ambient water quality criterion and the SWCB water quality standard. Volatile organics were low. Semivolatile organic compounds, ethylene dibromide, hexavalent chromium, pesticides, and PCBs were not detected at levels above detection limits in ground water, surface water and sediment samples associated with the landfill. The draft report stated that the 1990 data indicate hazardous constituents continue to migrate from the landfill via groundwater; the levels however are low. The report concluded that the site does not pose a threat to human health or the environment given the absence of receptors, the low levels of contamination, and their isolated occurrence. It recommended an annual monitoring program of analysis of one ground water sample from each of four monitoring wells for three years to continue monitoring groundwater quality and to verify the existence of lead contamination in the upgradient well.

Groundwater samples were collected from the four monitoring wells surrounding the site of the former pesticide shop. Three volatile organics, ethylbenzene, xylene, benzene, were present at levels below MCLs. Cis-1,3-dichloropropene was detected in one well at a level below the ambient water quality criteria. Three pesticides, DDD, DDE, and DDT, were present in one groundwater sample. The DDT exceeded the State Water Control Board's water quality standard for groundwater. The draft report concluded that the pesticide shop did not present a threat to human health or the environment given the absence of receptors and the low levels of contamination detected in groundwater. The site appears to be affected by a hydrocarbon spill or UST leak. An underground storage tank near the site is scheduled for replacement in October 1991. An annual monitoring program involving collection of ground water samples from each of the four wells to assess trends in groundwater quality and determine the source of the fuel-related compounds was recommended.

Written comments will be submitted to installation once the minutes of the TRC are received and reviewed.

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**Site Visit Report**  
**Fleet Combat Training Center, Dam Neck**  
**7/24/91**

**Summary**

<u>Site Description</u>	<u># of Sites</u>	<u>Status</u>
1. Site 1 - Regulus Avenue Landfill	1	SI completed
2. Site 6 - Former Pesticide Shop	1	SI completed

Total Number of Sites - 2

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Site Visit Report  
Portsmouth Naval Hospital  
8/12/91

On August 12, Erica Dameron and Anne Field from the Federal Facilities Program - Superfund, met with Ken Walker, Lantdiv Remedial Project Manager and Bob Wall, Facilities Management Engineer and Energy Management Officer for the Portsmouth Naval Hospital. The site visit was conducted to establish contact with the installation and to obtain information on the hospital's sites in the DERP and to update their status.

According to the "Defense Environmental Restoration Program Annual Report to Congress" the installation has 2 sites. The Preliminary Assessment Report, dated April 1984, lists two sites--the Shoreline Fill Area (Site 1) and Substation #5 PCB leak (Site 2).

Mr. Wall briefly discussed several USTs at the hospital. Currently, no underground tanks are used for heating oil. There are 10 underground tanks at the hospital that range from 500 to 5000 gallons. One tank contains water and another, a 5000 gallon tank, is being removed. The rest contain gasoline. The tanks have been integrity tested and met EPA requirements. In addition one old fuel tank was discovered at Building 97. A little over 500 gallons of fuel oil were pumped from this tank on August 6. The tank is to be removed. A fill pipe was also discovered near Building 97. It is not known whether it is connected to a tank that is still underground. No fuel oil vapors were detected. Additional investigation will be done to try to locate a tank. Ms. Dameron explained that the UST program is under the aegis of the State Water Control Board but requested that the DWM be advised of underground storage tank remediation so that we can be aware of the work being done under DERP. We then went to the two sites.

1. **Site 1 - Shoreline Fill Area**

The fill area extends approximately 1800 feet along the shoreline on the outside perimeter of what was a baseball field. A new helicopter landing pad has been constructed inshore of the fill area. According to the PA report, the fill area has existed since before 1942. Demolition debris from 12 buildings (B1 - B12) was deposited in the fill area after World War II. The buildings contained asbestos in several forms including shingles, pipe insulation, and probably wall and roof insulation. The estimated quantity of asbestos is 110 cubic yards. The fill area was covered with at least two feet of soil in

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the 1960's. During the site visit on August 12, large chunks of concrete, old pipes, wood, masonry, and tile were visible in areas along the shoreline. The deposit of some of the building debris along the shoreline may have been intended as rip rap to control shoreline erosion. In addition, an estimated 12000 cubic yards of domestic incinerator ash generated in the 1940's through sometime in the 1960s was disposed of in the fill area. The incinerator ash may contain metals. Mr. Walker said that the monitoring done at the site did not find any metals (including mercury which might have been expected at a hospital waste disposal site) or asbestos. Soil was also tested during construction of the new helicopter landing pad and no asbestos was found. (The pad was apparently constructed outside of the old fill area).

2. **Site 2 - Substation #5 PCB Leak**

A transformer leaked PCBs onto a concrete pad at substation #5 which is located between wings G and F of Building 1. The stain on the slab from the leak is approximately two to three feet in diameter. The transformer currently on the slab was installed in 1987. The type of liquid leaked is pyranol and has a concentration of greater than 500 ppm of PCBs. From the appearance of the stain not more than one to two quarts of liquid leaked onto the pad. The substation is locked with a fence surrounding it. According to Mr. Walker, the only action needed at the pad is triple rinsing. Soil tested around the pad showed only low levels of PCBs, less than 10 ppm. An engineering services request has been made for design of the remedial action at the pad.

\* According to Mr. Walker, the Site Inspection Report does not recommend further remedial action at the sites and the Navy intends to follow through with a formal finding of No Further Action (NFA). Mr. Walker agreed to send a copy of the Site Investigation Report.

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Site Visit Report  
Portsmouth Naval Hospital  
8/12/91

Summary

<u>Site Description</u>	<u># of Sites</u>	<u>Status</u>
1. Site 1 - Shoreline Fill Area	1	PA/SI completed. No Further Action.
2. Site 2 - Substation #5 PCB Leak	1	PA/SI completed. No Further Action.

Total Number of Sites - 2

CONFIDENTIAL EXPENSE

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**Site Visit Report**  
**Naval Surface Warfare Center, Dahlgren**  
**7/10/91**

On July 10, 1991, Erica Dameron, Jamie Walters and Anne Field from the Federal Facilities Program - Superfund visited the Naval Surface Warfare Center, Dahlgren and met with Ann Swope, Remedial Project Manager for DERP activity at the installation. The site visit was conducted to establish contact with the installation and to obtain information on sites undergoing remediation under the DERP and update their status.

The "Defense Environmental Restoration Program Annual Report to Congress" lists the installation as having 37 sites. The Initial Assessment Study, dated May 1983, identified a total of 36 potentially contaminated sites. The Initial Assessment recommended seven sites for confirmation study. (An area of potential lead contamination was identified subsequent to the Initial Assessment study and is listed below as Site 37). The Confirmation Study Report was completed in February, 1986. Ten sites are currently included in the DERP. According to Ms. Swope, with the exception of the Barbette, none of the sites has been delineated. A Workplan for the RI/FS and a community relations plan have previously been submitted to the installation by the consultant. The Installation has reviewed and commented on the draft plans. A meeting with the installation, Martin-Marietta, the contractor and Dames and Moore, the subcontractor who actually developed the work plan and the community relations plan, was held on July 12, 1991. The meeting was to discuss whether the consultant should redraft the plans using the installation comments or take the current draft to a TRC meeting to seek other comments before any redraft is done. The subcontractor held a community briefing in September 1990, and followed it with community interviews. Ms. Swope said that John Woodburn would be working on the installation for the Chesapeake Division, Naval Facilities Engineering Command under Frank Peters.

**1. Site 2 - Fenced Ordnance Burial Area**

According to the Initial Assessment report, in or around 1970 a fenced landfill was excavated for disposal of metal ordnance material which could not be verified as safe for disposal as normal scrap metal. Some thorium-magnesium, asbestos pipe wrappings, and rinsed pesticide containers may have been disposed of at the site. There is currently a fenced area at this site but according to Ms. Swope, the burial area extends beyond the fenced area.

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