



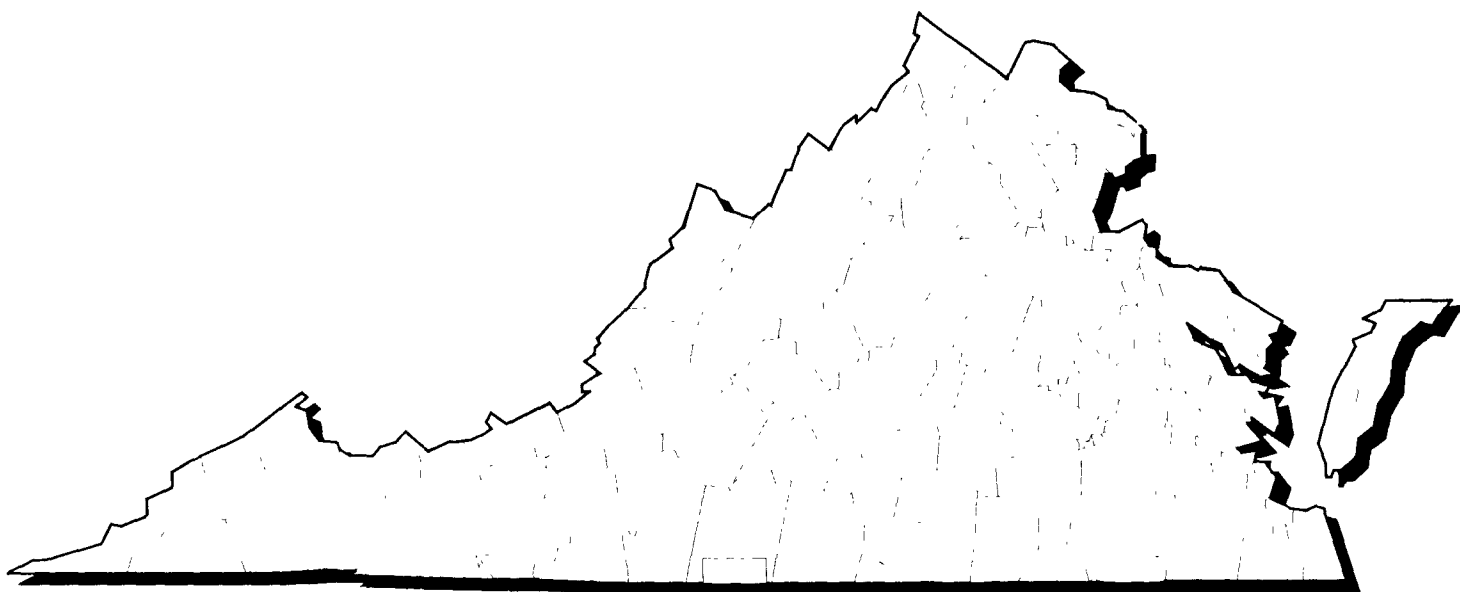
United States  
Environmental Protection  
Agency

Solid Waste And  
Emergency Response  
(5201 G)

EPA/540/R-95/116 ✓  
PB95-962948  
9200.5-745C  
May 1995

# SUPERFUND:

Progress at  
National  
Priority  
List Sites



# VIRGINIA 1995 UPDATE



Printed on Recycled Paper



# How to Use the NPL Book

600 E 30th St 741

The site fact sheets presented in this book are comprehensive summaries that cover a broad range of information. The fact sheets describe hazardous waste sites on the NPL and their locations, as well as the conditions leading to their listing ("Site Description"). The summaries list the types of contaminants that have been discovered and related threats to public and ecological health ("Threats and Contaminants"). "Cleanup Approach" presents an overview of the cleanup activities completed, underway, or planned. The fact sheets conclude with a brief synopsis of how much progress has been made in protecting public health and the environment. The

summaries also pinpoint other actions, such as legal efforts to involve polluters responsible for site contamination and community concerns.

The fact sheets are arranged in alphabetical order by site name. Because site cleanup is a dynamic and gradual process, all site information is accurate as of the date shown on the bottom of each page. Progress is always being made at NPL sites, and the EPA periodically will update the site fact sheets to reflect recent actions. The following two pages show a generic fact sheet and briefly describe the information under each section.

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## How Can You Use This State Book?

You can use this book to keep informed about the sites that concern you, particularly ones close to home. The EPA is committed to involving the public in the decision making process associated with hazardous waste cleanup. The Agency solicits input from area residents in communities affected by Superfund sites. Citizens are likely to be affected not only by hazardous site conditions, but also by the remedies that combat them. Site cleanups take many forms and can affect communities in different ways. Local traffic may be rerouted, residents may be relocated, temporary water supplies may be necessary.

Definitive information on a site can help citizens sift through alternatives and make decisions. To make good choices, you must know what the threats are and how the EPA

intends to clean up the site. You must understand the cleanup alternatives being proposed for site cleanup and how residents may be affected by each one. You also need to have some idea of how your community intends to use the site in the future, and you need to know what the community can realistically expect once the cleanup is complete.

The EPA wants to develop cleanup methods that meet community needs, but the Agency only can take local concerns into account if it understands what they are. Information must travel both ways in order for cleanups to be effective and satisfactory. Please take this opportunity to learn more, become involved, and assure that hazardous waste cleanup at "your" site considers your community's concerns.



Provides the dates when the site was Proposed, made Final, and Deleted from the NPL.

Identifies the Federal, State, and/or potentially responsible parties taking responsibility for cleanup actions at the site.

Summarizes the actions to reduce the threats to nearby residents and the surrounding environment and the progress towards cleaning up the site.

EPA ID# ABC0000000



COUNTY NAME  
LOCATION

**Other Names:**

## Site Description

[illegible]

**Site Responsibility:**

XXXXXX XXX XXXXX XXXXXXXX  
XXXXXX XXXXXXXXXX XXXXXXXX  
XXXXXXXXXXXXXXXX XXXXXXXX

### NPL Listing History

Proposed XX/XX/XX  
Final: XX/XX/XX

## Threats and Contaminants

[illegible]

## Cleanup Approach

XXXXXXXX XXX XXXXX XXXXXXXXXXXXXXXXXXXX XXXXXXX XXXXXXXXXXXX XXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXXX  
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XXXXXXXXXXXXXXXXXXXXXXXX XXXXXXX XXX XXXXXXXXXXXXXXXXXXXXXXX XX XXXXXXX XXXXX XXXXXXX XXXXX X XXX XXXXXXXXXXXXXXX

### Response Action Status

[illegible]

### Site Facts:

**Site Facts:**

## Environmental Progress

[illegible]

## Site Repository

XXXXXXXX XXX XXXXX XXXXXXXXXXXXXXX XXXXXX XXXXXXXXXXXX XXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXX

## SITE REPOSITORY

**Lists the location of the primary site repository. The site repository may include community relations plans, public meeting announcements and minutes, fact sheets, press releases, and other site-related documents.**



**A****SITE DESCRIPTION**

This section describes the location and history of the site. It includes descriptions of the most recent activities and past actions at the site that have contributed to the contamination. Population estimates, land usages, and nearby resources give readers background on the local setting surrounding the site.

**B****THREATS AND CONTAMINANTS**

The major chemical categories of site contamination are noted, as well as which environmental resources are affected. Icons representing each of the affected resources (may include air, groundwater, surface water, soil, and contamination to environmentally sensitive areas) are included in the margins of this section. Potential threats to residents and the surrounding environments arising from the site contamination also are described.

**C****CLEANUP APPROACH**

This section contains a brief overview of how the site is being cleaned up.

**D****RESPONSE ACTION STATUS**

Specific actions that have been accomplished or will be undertaken to clean up the site are described here. Cleanup activities at NPL sites are divided into separate phases, depending on the complexity and required actions at the site. Two major types of cleanup activities often are described: initial, immediate, or emergency actions to quickly remove or reduce imminent threats to the community and surrounding areas; and long-term remedial phases directed at final cleanup at the site. Each stage of the cleanup strategy is presented in this section of the summary. Icons representing the stage of the cleanup process (initial actions, site investigations, EPA selection of the cleanup remedy, engineering design phase, cleanup activities underway, and completed cleanup) are located in the margin next to each activity description.

**E****SITE FACTS**

Additional information on activities and events at the site are included in this section. Often details on legal or administrative actions taken by the EPA to achieve site cleanup or other facts pertaining to community involvement with the site cleanup process are reported here.



# Guide to the NPL Book Icons

The “icons,” or symbols, accompanying the text allow the reader to see at a glance which environmental resources are affected and the status of cleanup activities at the site.

## Icons in the Threats and Contaminants Section



Contaminated *Groundwater* resources in the vicinity or underlying the site. (Groundwater is often used as a drinking water source.)



Contaminated *Surface Water and Sediments* on or near the site. (These include lakes, ponds, streams, and rivers.)



Contaminated *Air* in the vicinity of the site. (Air pollution usually is periodic and involves contaminated dust particles or hazardous gas emissions.)



Contaminated *Soil and Sludges* on or near the site. (This contamination category may include bulk or other surface hazardous wastes found on the site.)



Threatened or contaminated *Environmentally Sensitive Areas* in the vicinity of the site. (Examples include wetlands and coastal areas or critical habitats.)

## Icons in the Response Action Status Section



*Initial, Immediate, or Emergency Actions* have been taken or are underway to eliminate immediate threats at the site.



*Site Studies* at the site to determine the nature and extent of contamination are planned or underway.



*Remedy Selected* indicates that site investigations have been concluded, and the EPA has selected a final cleanup remedy for the site or part of the site.



*Remedy Design* means that engineers are preparing specifications and drawings for the selected cleanup technologies.



*Cleanup Ongoing* indicates that the selected cleanup remedies for the contaminated site, or part of the site, currently are underway.



*Cleanup Complete* shows that all cleanup goals have been achieved for the contaminated site or part of the site.

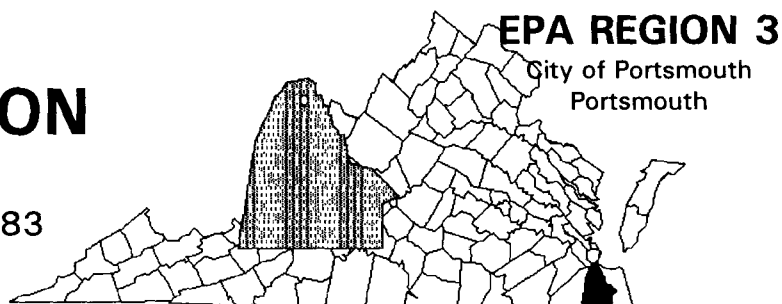


<b>EPA ID Number</b>	<b>Site Name</b>
VAD980551683	ABEX CORP.
VAD042916361	ARROWHEAD ASSOCIATES/SCOVILL CORP.
VAD990710410	ATLANTIC WOOD INDUSTRIES, INC.
VAD070358684	AVTEX FIBERS, INC.
VAD089027973	BUCKINGHAM COUNTY LANDFILL
VAD049957913	C & R BATTERY CO., INC.
VAD980712913	CHISMAN CREEK
VAD059165282	CULPEPER WOOD PRESERVERS, INC.
VA3971520751	DEFENSE GENERAL SUPPLY CENTER
VAD980552095	DIXIE CAVERNS COUNTY LANDFILL
VAD980554984	FIRST PIEDMONT QUARRY (ROUTE 719)
VA6210020321	FORT EUSTIS (US ARMY)
VAD003125374	GREENWOOD CHEMICAL CO.
VAD980539878	H & H INC., BURN PIT
VAD007972482	L. A. CLARKE & SON
VA2800005033	LANGLEY AIR FORCE BASE/NASA LANGLEY CENTER
VA1170024722	MARINE CORPS COMBAT DEVELOPMENT COMMAND
VAD980712970	MATTHEWS ELECTRIC PLATING
VA7170024684	NAVAL SURFACE WARFARE-DAHLGREN
VA8170024170	NAVAL WEAPONS STATION - YORKTOWN
VAD071040752	RENTOKIL, INC. (VA WOOD PRESERVING DIVISION)
VAD980831796	RHINEHART TIRE FIRE DUMP
VAD003127578	SALTVILLE WASTE DISPOSAL PONDS
VAD003117389	SAUNDERS SUPPLY CO.
VAD980917983	SUFFOLK CITY LANDFILL
VAD980705404	U.S. TITANIUM



# ABEX CORPORATION VIRGINIA

EPA ID# VAD980551683



## Site Description

The Abex Corporation site covers 2 acres in Portsmouth. The company operated a brass and bronze foundry from 1928 to 1978. Abex produced parts such as brake shoes and ball bearings for railroad cars. The EPA estimates that lead was released into the air at a rate of 10 pounds per day from a 1-acre process area and that 3,500 cubic yards of lead-laden furnace sands were dumped into an adjoining 1-acre area. In 1984, the EPA identified elevated levels of lead in the fill area and in residential lots next to the fill area. Abex has found significant soil contamination around both the landfill and the old process areas. Approximately 10,000 people live or work within a mile of the site. A number of those residents live either on or immediately adjacent to the lead-contaminated soils. The site also is adjacent to an elementary school.

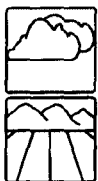
**Site Responsibility:** This site is being addressed through Federal, State, and potentially responsible parties' actions.

### NPL LISTING HISTORY

Proposed Date: 06/16/88

Final Date: 08/30/90

## Threats and Contaminants



The air has been contaminated with heavy metals including lead, copper, and tin. Soils exhibit high pH levels and are contaminated with lead. Public health threats include direct contact with soil, surface water, and air. Groundwater is not used as a drinking water source within 3 miles of the site. In 1986, the EPA sampled home surfaces that demonstrated the presence of contaminated air.

## Cleanup Approach

The site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.



## Response Action Status

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**Immediate Actions:** In 1988, Abex graded the site and surrounded it with fencing topped with barbed wire. The company also covered much of the old landfill with asphalt, excavated some areas adjacent to the landfill, filled them in and revegetated.

Due to results of samples collected from the excavated areas, additional soil contaminated with lead was excavated in mid-1992 and was disposed of at a federally approved landfill. A second removal action in 1992 involved further removal of surface soil. The site is secured against direct contact with contaminated areas while additional cleanup actions are pending.



**Entire Site:** Abex initiated site investigations in 1989 to determine the extent of the contamination and to recommend cleanup technologies. Investigations were completed in 1992. The EPA and the State selected final cleanup remedies to address contamination at the Abex Corporation site, including excavation of contaminated deep soil, demolition of the foundry at the site and temporary relocation of some people, while cleanup activities are underway. Design of the remedy is expected to be completed in 1995.

**Site Facts:** On August 11, 1986, the EPA and Abex signed a Removal Consent Agreement and Order, which requires Abex to reduce lead contamination to levels that do not constitute an imminent threat to public health.

## Environmental Progress



The Abex Corporation site has been securely fenced and most exposed sources of contamination have been excavated or covered to eliminate the threat of exposure to hazardous materials or air at the site while investigations leading to final cleanup solutions are being conducted.

## Site Repository



Portsmouth Public Library, 601 Court Street, Portsmouth, VA 23704

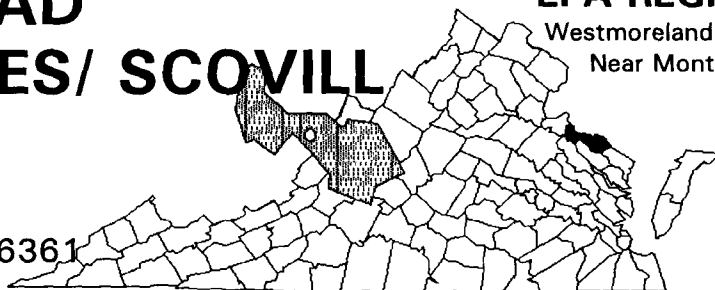


# ARROWHEAD ASSOCIATES/ SCOVILL CORP. VIRGINIA

EPA ID# VADO42916361

EPA REGION 3

Westmoreland County  
Near Montross



## Site Description

The Arrowhead Associates/Scovill Corp. site is located on 25 acres in a rural area near Montross. The Scovill Corp. electroplated cosmetic cases from 1966 to 1972, when Arrowhead, Inc. of Delaware acquired the business and its assets. Arrowhead continued the electroplating operations until 1979. From 1979 to 1981, Arrowhead also filled the cases with cosmetics. From 1981 to the present, several other firms have assembled and filled cosmetic cases on the site, and from 1975 to the present, wiring harnesses for automobiles have been manufactured on the site. Plating wastes were treated in a surface impoundment system and discharged to Scates Branch Stream under a permit issued through the National Pollutant Discharge Elimination System (NPDES). After the plating operations ended in 1979, process equipment and materials were abandoned at the site. An estimated 1,100 people obtain drinking water from shallow private wells within 3 miles of the site. A coastal wetland is about 1 mile from the site, and local surface water is used for recreational activities.

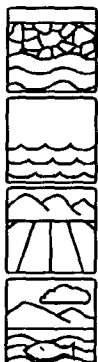
**Site Responsibility:** This site is being addressed through a combination of Federal, State, and potentially responsible parties' actions.

### NPL LISTING HISTORY

Proposed Date: 06/24/88

Final Date: 02/21/90

## Threats and Contaminants



High levels of volatile organic compounds (VOCs) in the groundwater at the site pose a significant threat. The contamination plume extends off site and into the Scates Branch and the South Fork Scates Branch Streams where groundwater discharges to the streams. Surface soil sampling did not indicate a widespread presence of contamination; VOCs, heavy metals, and cyanide were found in a few locations. In subsurface soil, high levels of VOCs were found in two former drum storage areas and in one of the former pond areas; high levels of heavy metals were detected in the area of the former disposal ponds. Ingesting or touching contaminated groundwater, surface water, or soil could pose a health threat.



## Cleanup Approach

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The site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

## Response Action Status

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**Immediate Actions:** In 1986, the Scovill Corp. initiated removal of wastes and contaminated materials from the site including 300 drums containing benzene, paints, lacquers, thinners, metal plating wastes, and cyanide; residual process wastes; damaged tanks; interior piping; and deteriorated concrete from inside the manufacturing building. In 1988, approximately 395 cubic yards of contaminated soil were removed from the drum disposal area and disposed of off site. Contaminated wastewater from six disposal lagoons was treated and discharged to Scates Branch Stream; soils and sludges from lagoons were removed and disposed of off site. In 1990, the lagoons were filled, graded, revegetated, and fitted with erosion control measures.



**Entire Site:** In 1991, an investigation at this site was completed and remedies were selected to address contaminated groundwater and soils. The major components of the selected remedy for contaminated groundwater include construction of a groundwater extraction system to remove contaminated groundwater from the aquifer for treatment, with inorganic contaminants treated through precipitation and organic contaminants treated through air stripping and carbon adsorption. The treated water will be discharged to the Scates Branch Stream. Contaminated soils will be treated through vapor extraction, using carbon adsorption to capture and treat gas from the extraction process prior to discharge to the atmosphere. Technical design of the selected remedies is underway and is expected to be completed in 1996.

**Site Facts:** In 1986, Scovill Corp. signed a Consent Order with the EPA, requiring Scovill to develop and undertake a cleanup plan. In 1989, Scovill and the Virginia Department of Waste Management signed a Consent Order and Agreement, requiring Scovill to conduct an investigation to determine the extent of contamination and the alternative technologies for cleanup. In 1994, Scovill Corp. signed a Consent Decree to clean up the site.

## Environmental Progress



The immediate removal of the contaminated drums, soils, and surface water, as well as sludges and contaminated soils from the six lagoons at the Arrowhead Associates/Scovill Corp. site, has reduced the potential for exposure to hazardous materials while further cleanup activities are being designed.



## Site Repository



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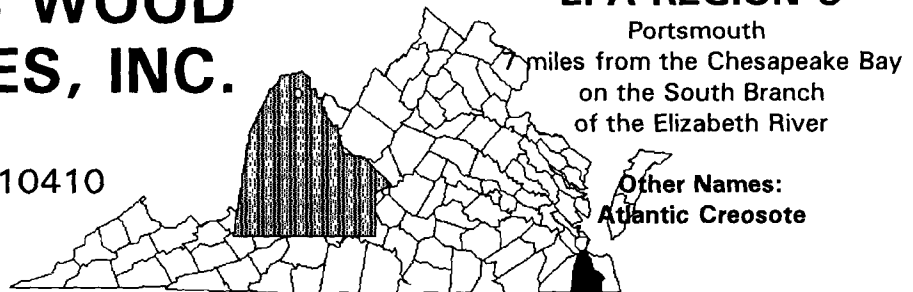
Assistant County Administrator, Westmoreland County, Social Services Building,  
Peachgrove Lane, Montross, VA 22520



# ATLANTIC WOOD INDUSTRIES, INC. VIRGINIA

EPA ID# VAD990710410

## EPA REGION 3



### Site Description

The 47 1/2-acre Atlantic Wood Industries, Inc. site houses a wood-treating facility that operated from 1926 until 1992. Contaminants from the wood preservatives used by the facility are present in the soil and water. Sediments and 20,000 cubic feet of landfilled wood chips and debris are contaminated with creosote and pentachlorophenol (PCP). Wastes from the site have entered the groundwater and are infiltrating a city storm sewer that discharges into an intertidal drainage ditch, which is part of the South Branch of the Elizabeth River. In 1982, 350,000 gallons of contaminated water in leaking aboveground storage tanks were removed. The site is located on the Elizabeth River, about 7 miles from the Chesapeake Bay. Approximately 14,000 people work within a 1/2-mile radius of the site. The water supply for a 3-mile radius area is provided by public utilities. Groundwater within the 3-mile radius is not used as a water source.

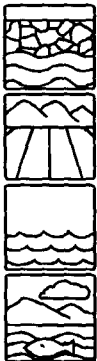
**Site Responsibility:** This site is being addressed through Federal and potentially responsible parties' actions.

#### NPL LISTING HISTORY

Proposed Date: 06/01/86

Final Date: 02/15/90

### Threats and Contaminants



Creosote, PCP, and other contaminants from former wood-treating processes have been detected in the groundwater and soils. Polycyclic aromatic hydrocarbons (PAHs) are found in on- and off-site sediments. Off-site sediments also contain phenol and PCP. PCP, arsenic, and chromium have been detected in surface water near the site. Direct contact with and accidental ingestion of soil on the site could potentially harm people. Coming in direct contact with materials that have moved off-site or inhaling dust from the site also poses a potential health threat. Oyster beds are located within 3 miles downstream. Studies by the Virginia Institute of Marine Science have shown that oysters within this reach have accumulated significant levels of creosotes.



## Cleanup Approach

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This site is being addressed in three stages: initial actions and two long-term remedial phases focusing on cleanup of the on-site soils, sediments, and non-aqueous product and cleanup of groundwater and Elizabeth River sediments.

## Response Action Status

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**Initial Actions:** In 1982, 350,000 gallons of contaminated water in leaking above ground storage tanks were removed from the site. The parties potentially responsible for the site contamination have recently agreed to remove the creosote-contaminated storm drainage sewer that discharges to the Elizabeth River. Sampling identified extensive soil contamination around the sewer and in the inlet and EPA. This removal action is expected to be completed in 1995.



**On-Site Soils, Sediments, and Non-Aqueous Product:** A study to determine the nature and extent of contamination of on-site soils, sediments, and non-aqueous product was completed in 1992. Alternatives for cleanup remedies are being evaluated and a final remedy is scheduled for selection in 1995.



**Groundwater and Elizabeth River Sediments:** An additional investigation is being planned to address the extent of contamination of groundwater and of the Elizabeth River adjacent to the site. This investigation is expected to begin in 1995 and will include groundwater studies and may include sampling and analysis of Elizabeth River sediments.

**Site Facts:** A Consent Order to conduct a removal on-site and to initiate site studies was signed by the potentially responsible parties in 1987. The EPA and the National Oceanic and Atmospheric Administration (NOAA) entered into an Interagency Agreement to conduct an Ecological Risk Assessment of the Elizabeth River and to prepare a sampling and analysis plan for the river.

## Environmental Progress



Preventing creosote from entering the intertidal inlet of the Elizabeth River will reduce the risk to people and the environment while further studies and final cleanup activities are being planned.

## Site Repository

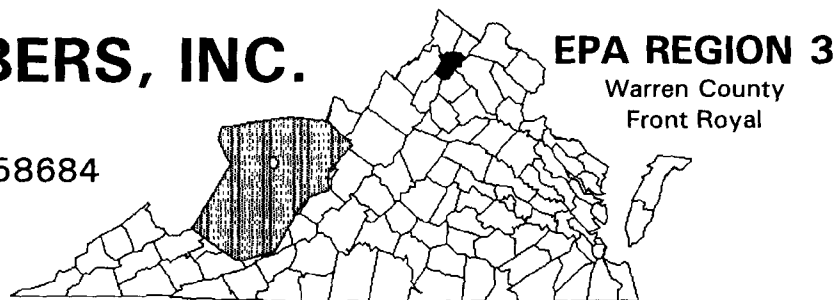


Portsmouth Public Library, 601 Court Street, Portsmouth, VA 23704



# AVTEX FIBERS, INC. VIRGINIA

EPA ID# VAD070358684



## Site Description

A rayon manufacturing plant has operated at this 440-acre site since 1940 under various owners, including American Viscose from 1940 to 1963, the FMC Corporation from 1963 to 1976, and its present owner Avtex Fibers, Inc. The plant also produced polyester and polypropylene for short periods. Rayon manufacturing wastes and by-products, as well as fly ash and boiler room solids, were placed in 23 land-disposal impoundments on site. In 1983, land disposal of the liquid waste material was discontinued, and treatment at the on-site wastewater treatment plant was initiated. State studies have detected groundwater contamination under and across the river from the site. In 1982, the State found carbon disulfide in wells in a residential area near the site. Avtex Fibers purchased the properties with contaminated wells in 1983 and 1984. A groundwater pumping system to keep contaminated groundwater from migrating was installed by Avtex Fibers in 1984. The plant held a National Pollutant Discharge Elimination System (NPDES) permit to discharge its effluent into the Shenandoah River. From 1987 to 1988, a significant number of violations of the NPDES permit occurred. In 1989, polychlorinated biphenyl (PCB) contamination in the Shenandoah River was linked to the Avtex Fibers plant, and the plant's NPDES permit was revoked. Shutdown of the Avtex Fibers plant followed this action. Approximately 1,300 people live within a 3-mile radius of the site and depend on groundwater as a drinking water supply. The site is situated within the 100-year flood plain of the Shenandoah River.

**Site Responsibility:** This site is being addressed through a combination of Federal, State, and potentially responsible parties' actions.

### NPL LISTING HISTORY

Proposed Date: 10/15/84  
Final Date: 06/10/86

## Threats and Contaminants



The groundwater is contaminated with carbon disulfide, phenol, sodium, and heavy metals including lead, arsenic, and cadmium from wastes deposited in the viscose disposal basins. The soil is contaminated with carbon disulfide, phenol, arsenic, lead, and PCBs. The Shenandoah River contains PCBs from the plant. Public health may be threatened by ingesting or coming in contact with contaminated water or soil and inhaling dust from the site.



## Cleanup Approach

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The site is being addressed in four stages: immediate actions and three long-term remedial phases focusing on groundwater cleanup; buildings, soils, and drums cleanup; and cleanup of remaining contaminated areas.

## Response Action Status

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**Immediate Actions:** In 1984, Avtex Fibers supplied bottled drinking water for four families and assisted one family in building a cistern. After the plant was shutdown in 1989, the EPA conducted site stabilization activities including: an imminent hazard evaluation; establishment of site security, control, and maintenance of critical systems; design and implementation of a low-flow wastewater treatment system to maintain freeboard in the industrial basins; transfer and transport of raw chemicals such as carbon disulfide and sulfuric acid to suppliers; detonation of explosive labpack chemicals; labpacking, off-site transport, and disposal of all flammables, peroxide formers, and short-life chemicals; completion of a three-phase decommissioning of 22 carbon disulfide impoundments using an innovative on-site treatment system; and draining, flushing, and on site treatment of various process line, tank, and vessel fluids from areas of the plant. The EPA is presently conducting additional removal actions which began in mid-1994. Final decommissioning of the carbon disulfide impoundment areas was performed by removing the sludges and rainwater, and demolishing the impoundments to prevent further rainwater build-up. Currently, the large capacity outside storage tanks are being addressed by removing and/or treating the contents and disposing of the tanks. Materials that cannot be treated or contained on site will be transported for off-site disposal.



**Groundwater:** In 1988, the EPA selected a remedy to clean up the groundwater, which includes pumping and treating the groundwater and surface water; dewatering viscose basins; monitoring the groundwater; and placing deed restrictions prohibiting the use of groundwater on the properties affected by contamination. Avtex Fibers pumped and treated the groundwater under the direction of the State. The FMC Corporation completed the preliminary treatment design for the selected remedy in 1993. Currently, additional data is being collected that will complete the design phase.



**Buildings, Soils, and Drums:** Based on findings at other areas of the site, a cleanup remedy was selected to address several thousand drums of waste staged on site, PCB-contaminated soil, and an unstable acid reclamation facility. To date, approximately 8,000 tons of PCB contaminated soil and debris have been excavated, transported, and disposed of off site in an approved chemical waste landfill. This action was completed in early 1992. Also in early 1992, the dismantling and demolition of the acid reclaim facility was completed. Over 750 tons of chemical debris removed from pipes, tanks, and building structures were disposed of in approved solid waste and hazardous waste landfills. Site security measures, instituted by the EPA in mid-1992, are scheduled to continue through late 1995. Activities to identify, transport, and dispose of approximately 2,879 drums of wastes on site were completed in 1994. Additional building demolition actions are under consideration.





**Remaining Contaminated Areas:** The EPA has initiated a study to determine the nature and extent of contamination and to identify alternatives for cleanup of the plant, the remaining disposal areas, and the south fork of the Shenandoah River. The first phase of the study began in mid-1993 and was completed in 1994. Phase two of the study is expected to begin in 1995. Treatability studies may be needed to determine the best approach for cleaning up several of the disposal areas. The cleanup also may be divided into several phases as the study progresses.

**Site Facts:** Avtex Fibers entered into an Administrative Order on Consent with the EPA in 1986 to perform site studies. The Order was expanded in 1988 to include the FMC Corporation. The EPA issued an Administrative Order to the FMC Corporation and Avtex Fibers on June 30, 1989, requiring implementation of groundwater cleanup actions. In February 1990, Avtex Fibers filed for bankruptcy, and the EPA filed a Superfund lien against the property. On February 2, 1990, EPA issued an Administrative Order to FMC Corporation requiring FMC to maintain freeboard in several on-site lagoons through the use of the wastewater treatment plant. The EPA issued an Administrative Order to FMC on October 22, 1991, requiring the supply of drinking water to four residents. On May 19, 1992, EPA and the Joseph A. Repetto Company entered into an Administrative Order for the removal of site assets purchased through the bankruptcy court. Additional asset purchasers have signed onto the "Repetto" Order to remove assets. Original negotiations with Avtex Fibers and the FMC Corporation to perform site studies failed; however, at their request, FMC Corporation will implement a portion of the site-wide investigation developed by the EPA. On April 3, 1993, EPA and FMC Corporation entered an Administrative Order for the performance of a remedial investigation and feasibility study for portions of the site.

## Environmental Progress



Providing bottled water to affected residents and completing most of the site stabilization activities have eliminated immediate threats at the Avtex Fibers, Inc. site while the EPA continues investigations and site cleanup activities. In addition, concepts to redevelop the Avtex Fibers property are being planned by the FMC Corporation in conjunction with the Economic Development Authority and state and local officials.

## Site Repository



Samuels Public Library, 538 Villa Avenue, Front Royal, VA 22630

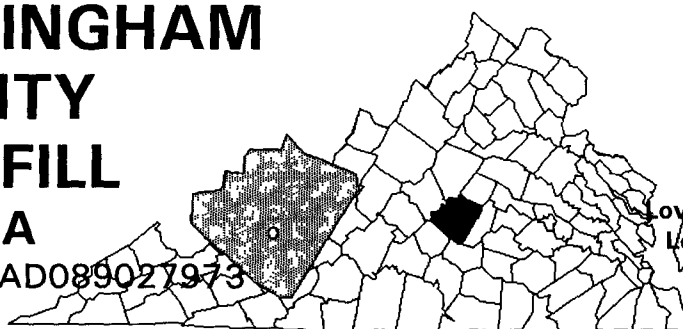


# BUCKINGHAM COUNTY LANDFILL VIRGINIA

EPA ID# VAD089027973

## EPA REGION 3

Buckingham County  
Virginia Route 640 near  
the Town of Buckingham



Other Names:  
Love's Container Service Landfill  
Love's Hazardous Waste Site

## Site Description

The Buckingham County Landfill encompasses approximately 8 acres, including a 2-acre hazardous waste disposal area. A domestic waste landfill is adjacent to and directly South of the hazardous waste disposal area. The site is situated on 125 acres of wooded land. Love's Container Service operated as an unlicensed landfill on the site from 1962 until February 1972. In November 1972, the Virginia State Board of Health (VSBH) issued a permit to the facility to dispose of municipal waste. In 1977, the permit was modified to allow the disposal of chemical wastes that a local furniture-making industry generated. In 1979, the solid waste landfill operation was closed and covered to the satisfaction of the VSBH; however, the facility received Interim Status as a hazardous waste disposal facility. There are four trenches located in the hazardous waste disposal area: an evaporation trench, eastern and western disposal trenches and the barrel trench. Liquid waste was brought to the site in drums and poured into the barrel trench. The solid residue remaining in the evaporation trench after the liquids evaporated was dug out and placed in either the eastern or western disposal trench. Buckingham County purchased the site in order to prevent its expansion as a hazardous waste disposal facility in 1982. In 1983, the County closed the hazardous waste portion of the site in accordance with State regulations, but not within EPA requirements. An estimated 1,100 people depend on wells located within 3 miles of the site as a source of drinking water. Approximately 40 people live within 1/2 mile of the site.

**Site Responsibility:** The site is being addressed through Federal and potentially responsible parties' actions.

### NPL LISTING HISTORY

Proposed Date: 04/10/85  
Final Date: 10/04/89

## Threats and Contaminants



Sampling during site investigations indicated that on-site groundwater wells are contaminated with volatile organic compounds (VOCs) from former disposal practices. The source of this contamination is the hazardous material buried in the on-site trenches. Potential risks exist if people ingest or make direct contact with contaminated groundwater or materials.



## Cleanup Approach

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This site is being addressed in a long-term remedial phase focusing on cleanup of the entire site.

## Response Action Status

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**Entire Site:** In 1993, a proposed cleanup plan was issued that included excavation and off-site treatment of contaminated soil. Due to concerns over excavation voiced by the local residents, in the fall of 1994, the EPA chose in-place soil vapor extraction as the cleanup alternative. Treatability studies will be performed to ensure that this treatment method can meet the soil cleanup levels set by the EPA. The final cleanup remedy includes monitoring the groundwater, implementing the source control measures, capping the hazardous waste disposal area, and a contingency of treating the groundwater if the plume should migrate.

## Environmental Progress



The EPA has performed preliminary investigations at the Buckingham County Landfill site and determined that there are no immediate threats to nearby residents or the environment, while final cleanup remedies are being planned.

## Site Repository



Buckingham County Library, Route #2, Box 41B, Dillwyn, VA 23936



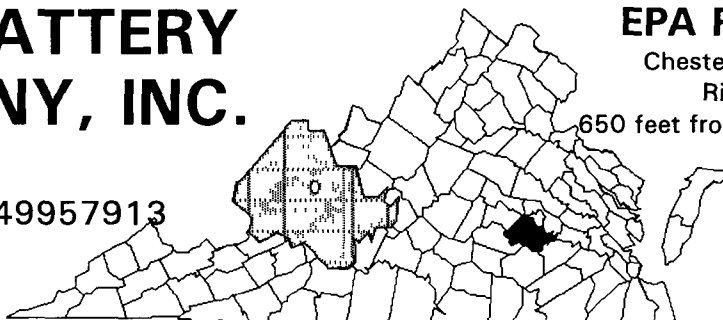
# C & R BATTERY COMPANY, INC. VIRGINIA

EPA ID# VAD049957913

## EPA REGION 3

Chesterfield County  
Richmond

650 feet from the James River



### Site Description

The 11-acre C & R Battery Company site is located in a rural and industrial area in Chesterfield County, Virginia. Between the early 1970's and 1985, the company recovered lead and lead oxide from old automobile, truck and commercial batteries. In 1982, the company detected high levels of lead in an on-site monitoring well, in soils, and in drainage ditches leading to the James River. Approximately 300 people live within a mile of the site. An estimated 1,200 people, living within 3 miles of the site, draw drinking water from private wells that tap the same aquifer found beneath the site. The nearest residential well is about 1,250 feet from the site.

**Site Responsibility:** This site was addressed through Federal, State, and potentially responsible parties' actions

#### NPL LISTING HISTORY

Proposed Date: 01/22/87

Final Date: 07/01/87

### Threats and Contaminants



Monitoring of the air at several work stations during battery breaking operations indicated lead contamination levels well above the Federal standards. The company detected high levels of lead in an on-site monitoring well and in site soils. Surface water and sediments from a drainage ditch were found to be contaminated with heavy metals and acids, also resulting from battery breaking operations. Ingesting or coming into direct contact with contaminated soil, surface water, or groundwater may have posed health risks to the nearby population. Inhalation of contaminated airborne particulate also may have posed a health risk to individuals. Prior to 1986, during routine health screenings, some company employees were found to have elevated levels of lead in their blood. Portions of the James River, approximately 3 miles downstream, are designated wetlands and are used for recreational purposes.



## Cleanup Approach

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### Response Action Status

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**Emergency Actions:** The EPA took emergency action at the site in 1986. Soils and pools of acid on the site were treated (mixed) with lime to reduce acidity. Some contaminated soils were excavated and stored pending final disposal. Drainage controls were installed, and the site was graded, capped, and fenced. Direct access to contaminated areas of the site was restricted by fencing.



**Entire Site:** The EPA completed an investigation to determine the nature and extent of contamination at the site in early 1990. Based on the results of this investigation, the EPA selected a cleanup remedy that included on-site stabilization or solidification of lead-contaminated soils and sediments; disposal of the treated material in a nearby solid waste landfill; clean closure of a former on-site acid pond area; and covering of areas within and outside the pond with clean soil before revegetating the entire site. The design of these technologies was completed in spring 1992, and construction of the remedies was completed in September 1993. However, the EPA will continue to monitor groundwater wells and maintain the soil cover to ensure the long-term effectiveness of the cleanup. Sampling shows that groundwater contamination has naturally attenuated and is no longer a threat.

**Site Facts:** The Commonwealth of Virginia took numerous enforcement actions at the site between 1979 and 1984. Actions resulted in a court order requiring development of a cleanup plan, construction of a treatment plant, and reclamation of the site. During site inspections in 1983, the Virginia Occupational Safety and Health Administration (OSHA) noted numerous violations of current OSHA standards. In 1985, Chesterfield County forbade the C & R Battery Company from further operation due to OSHA violations. The active operation ceased in the spring of 1985.

## Environmental Progress



The emergency actions performed by the EPA, including removing acids and contaminated soils, cleaning the surface water and sediments in the drainage ditch, and capping, fencing, and revegetating the site have reduced the potential for exposure to hazardous materials at the C & R Battery Company, Inc site. The EPA has completed all construction at the site, but will continue to monitor groundwater and maintain the soil cover to ensure the success of cleanup actions.

## Site Repository



Chesterfield Public Library, 9501 Lori Road, Chesterfield, VA 23832

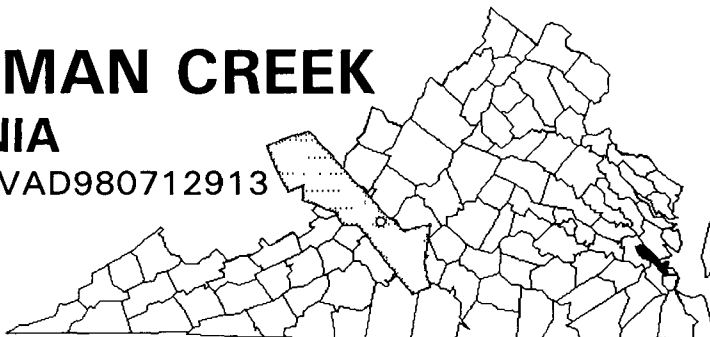


# CHISMAN CREEK VIRGINIA

EPA ID# VAD980712913

## EPA REGION 3

York County  
Suburban York County



Other Names:  
Chisman Creek Disposal

## Site Description

The 27-acre Chisman Creek site consists of four fly ash pits in a watershed of the Chisman Creek Coastal Basin. These pits were originally sand and gravel borrow areas, but were filled with fly ash from the Yorktown Power Generating Station between 1957 and 1980. In 1980, and in subsequent studies, evidence of trace metals was found in groundwater near the pits. In 1980, off-site shallow residential wells became contaminated with vanadium and no longer could be used. These homes later were connected to public water supplies. Approximately 500 to 1,000 people live within a 1-mile radius of the site.

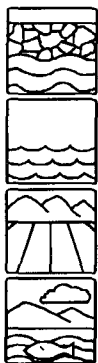
**Site Responsibility:** This site is being addressed through Federal and potentially responsible parties' actions.

### NPL LISTING HISTORY

Proposed Date: 10/23/81

Final Date: 09/08/83

## Threats and Contaminants



Vanadium, nickel, selenium, and sulfate have been found in groundwater near the four fly ash pits. Surface water in Chisman Creek was shown to be contaminated with vanadium, nickel, and sulfate. Drinking contaminated groundwater posed a risk to the public; however, potential risks have been reduced because residences with contaminated wells were connected to the public water supply and long-term groundwater treatment measures are underway. The subsurface fly ash and pond sediment materials do not pose a public health threat in their present, covered location. Nearby estuaries were potentially threatened by site contamination.



## Cleanup Approach

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### Response Action Status

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monitoring.

**Immediate Actions:** Virginia Power Co., the party potentially responsible for site contamination, connected public water lines to affected residences, placed covers over pits, and conducted groundwater diversion in selected areas, under EPA



**Pond Areas and Surface Water:** Surface drainage modifications have been made to divert runoff. This included water quality monitoring and sediment monitoring of ponds, tributaries, and estuaries. Cleanup actions were completed in 1989.



**Groundwater and Soils:** Construction of the remedies was completed and included installing temporary erosion and sedimentation control facilities; relocating the creek adjacent to one of the pits; installing horizontal groundwater drains to collect groundwater and dewater one of the pits; installing discharge pipes and a tie-in to a discharge; constructing flow and water quality monitoring stations and outlet channels; capping the fly ash pits using a low permeability cap and soil cover; revegetating the disturbed areas; and installing an on-site treatment system to treat collected groundwater from the pit area to remove nickel and vanadium. Groundwater treatment and monitoring of surrounding areas will continue until established cleanup goals have been met. On-site treatment of groundwater was discontinued in 1994 due to reduced contaminant levels. A sewer extension was built to connect the on-site pipes to local sewer extensions. Groundwater collection now discharges directly to the local sewer treatment plant.

**Site Facts:** A Consent Decree was signed with Virginia Power Co. to conduct site cleanup.

## Environmental Progress



All construction of cleanup actions has been completed as planned at the Chisman Creek site, making the surroundings safe again for nearby residents and the environment.

## Site Repository



York County Public Library, 8500 George Washington Highway, Yorktown, VA 23692

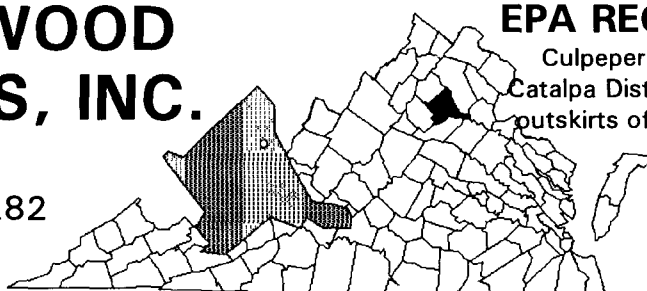


# CULPEPER WOOD PRESERVERS, INC. VIRGINIA

EPA ID# VAD059165282

## EPA REGION 3

Culpeper County  
Catalpa District on the  
outskirts of Culpeper



## Site Description

Culpeper Wood Preservers, Inc. is an active wood treatment facility that uses a chromated copper arsenate (CCA) waterborne treating process on a 20-acre site. The two-part wood treatment process begins by pressure-treating dimensional lumber in an enclosed processing plant. The wood then is moved to a dripping pad and left to dry for 3 days. Early on in the plant's history, the dripping pad was uncovered, and CCA-contaminated drippings were allowed to drop directly to the ground. In early 1981, approximately 100,000 gallons of CCA-contaminated wastewater escaped from an unlined, on-site waste impoundment, contaminating neighboring surface waters. The drip pad presently is covered, and the surrounding area is paved. An estimated 8,750 people live within a 3-mile radius of the site. Approximately 1,750 persons draw drinking water from private wells within that distance; the remaining population uses the Culpeper municipal system, which draws water upgradient of the contaminated area. Over 40 residences located within 2,000 feet of the site rely on groundwater for their drinking water supplies.

**Site Responsibility:** This site is being addressed through Federal and potentially responsible parties' actions.

### NPL LISTING HISTORY

Proposed Date: 10/15/84  
Final Date: 10/04/89

## Threats and Contaminants



The groundwater is contaminated with arsenic and chromium from the wood-treatment processes, according to analyses conducted by the Virginia State Water Control Board (SWCB). Contaminated soil containing chromium, copper, and arsenic was removed from the site in 1983; however, some remaining soil contamination might still be present. Wastewater containing CCA has contaminated neighboring surface waters. Potential risks exist for individuals who drink contaminated groundwater or surface water. The SWCB determined in 1986 that homeowner wells were not contaminated. An unnamed tributary that lies 750 yards northeast of the site and extends approximately 3 miles before entering Jonas Run potentially could be contaminated. Contaminated groundwater or surface water also may affect recreation and fishing.



## Cleanup Approach

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This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

## Response Action Status

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**Immediate Actions:** In response to enforcement actions in 1981, the site owner removed a quantity of contaminated soil, constructed new drip pads to ensure return of drips and runoff to appropriately contained treatment facilities, built a roof over the drip pads, and reconstructed the waste impoundment. In addition, 20-foot trenches were dug downgradient from the impoundments to catch leachate, and barrier walls were constructed to prevent further migration of contaminants.



**Entire Site:** A study to determine the nature and extent of contamination and to identify alternative technologies for the cleanup began in the fall of 1993. The study was completed in the summer of 1995. The EPA is expected to select a final cleanup remedy soon, at which time design of the selected remedy will begin.

**Site Facts:** One of the potentially responsible parties signed a Consent Agreement and Consent Order, requiring immediate cleanup actions and a surface water and groundwater monitoring plan. On June 16, 1993, Culpeper Wood Preservers entered into a Consent Agreement to conduct the site studies.

## Environmental Progress



The immediate actions performed at the Culpeper Wood Preservers, Inc. site have reduced the potential for contact with hazardous materials and have limited further contamination at the site. These actions have stabilized conditions while final cleanup remedies are being selected.

## Site Repository



Culpeper Town and County Library, 605 S. Main Street, Culpeper, VA.



# DEFENSE GENERAL SUPPLY CENTER VIRGINIA

EPA ID# VA3971520751

## EPA REGION 3

Chesterfield County  
2 miles south of Richmond



Other Names:  
Richmond Defense General Supply  
U.S. Defense General Supply Center

## Site Description

The Defense General Supply Center manages and furnishes general military supplies to the Armed Forces and several Federal civilian agencies. The one-square-mile site includes a hazardous waste landfill, a fire training pit, an acid neutralization pit, and storage areas where hazardous substances were spilled. Beginning in 1942, the site was used as a storage and recovery area for chemicals and as a reclamation area for drums. The pits were used for training and for the disposal of chemical waste from the mid-1960s to the late 1970s. In 1983, the pits were filled in with soil and covered with sparse vegetation. Groundwater on and off the site has been shown to be contaminated from past waste disposal practices and hazardous waste spills. Groundwater and surface water flow from the site toward Kingsland Creek, a tributary of the James River. There are 119 permanent residences on the site. About 3,500 people live within a mile of the area in a residential and suburban setting. Residential areas downgradient of the site rely on private wells and the municipal water system for drinking water. Kingsland Creek is used for recreational fishing.

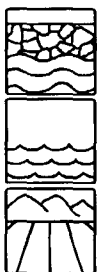
**Site Responsibility:** This site is being addressed through Federal actions.

### NPL LISTING HISTORY

Proposed Date: 10/01/84

Final Date: 07/01/87

## Threats and Contaminants



Groundwater is contaminated with volatile organic compounds (VOCs) such as chloroform, polycyclic aromatic hydrocarbons (PAHs), and chromium from former chemical wastes disposal practices. Sediments are contaminated with pesticides. The soil contains VOCs and pesticides, and the surface water on site is contaminated with metals and pesticides. Those who accidentally ingest or come in direct contact with contaminated groundwater, surface water, soil, or sediments may be at risk. In addition, recreational use of contaminated streams and water may pose a threat.

## Cleanup Approach

The site is being addressed in four long-term remedial phases concentrating on cleanup of the open storage area, acid neutralization pit, area 50/source area, other source areas, and groundwater plumes.



## Response Action Status

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**Open Storage Area:** In 1987, an investigation began to determine the nature and extent of contamination at the open storage area. The investigation was completed in 1992, and it was determined that no action was necessary.



**Acid Neutralization Pit:** An investigation was completed in early 1992 focusing on cleanup of the soil and removal of the old treatment tank concrete structure. The remedy selected for this area is a vacuum extraction technology. The EPA completed the technical design phase in 1993 and began actual site cleanup in early 1994. The EPA has conducted extensive sampling beneath the tank area and has completed construction of an impervious cover over the tank area. All cleanup activity at this area is expected to be completed in early 1995.



**Area 50/Source Area:** A focused study began in 1990 and is scheduled for completion in late 1995. The study will concentrate on identifying the nature and extent of contamination at the area 50/source area. Upon completion of the investigation, the EPA will determine the remedy to be used for final cleanup.



**Fire Training Area:** An investigation began in 1990 to determine the nature and extent of contamination at the Fire Training Area. The study is expected to be completed in 1996.



**National Guard Area:** In 1990, an investigation began into the nature and extent of contamination at the National Guard Area. This study is expected to be completed in mid-1995.



**Groundwater Plumes:** In the fall of 1993, the EPA completed a study of three groundwater plumes at the site. The EPA decided to pump and treat the groundwater using air stripping and activated carbon treatment to prevent further migration of contamination. While the EPA completed the design phase for this remedy in the fall of 1994, it is waiting to finish some additional studies before it begins construction which is currently slated for early 1995.

**Site Facts:** The Defense General Supply Center is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities. A Federal Facility Agreement was negotiated in 1990 and became effective in 1991, governing site cleanup activities.



## Environmental Progress



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The Defense General Supply Center site does not pose an immediate threat to public health or the environment. As individual units at the site are identified and studied, cleanup actions will be separated out and conducted in an accelerated manner under the Federal Facility Agreement that was negotiated for the site.

## Site Repository



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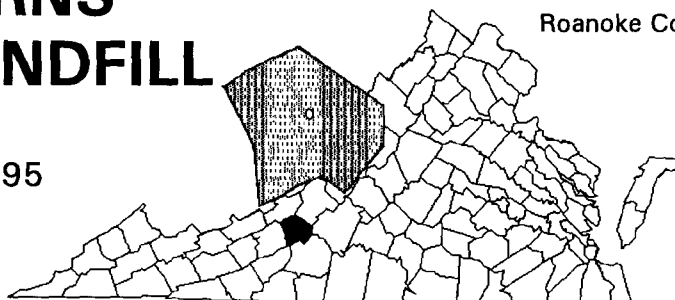
Chesterfield Public Library, 9501 Lori Road, Chesterfield, VA 23832



# DIXIE CAVERNS COUNTY LANDFILL VIRGINIA

EPA ID# VAD980552095

EPA REGION 3  
Roanoke County



## Site Description

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This 27-acre site, known as the Dixie Caverns County Landfill, is located on a 62-acre property and was operated as an unlicensed landfill from 1965 to 1976. The landfill officially was closed in 1976, although it was never capped. The landfill had been used for disposal of municipal refuse, scrap metal, sludge, fly ash (emission control dust) from an electric arc furnace, and other unidentified industrial wastes. An intermittent stream on the site flowed through a large drum pile and fly ash pile and then emptied into the Roanoke River approximately 2 miles southeast of the landfill. The river is the main water supply source for the City of Salem. The nearest water intake is located in Glenvar, 4 1/2 miles downstream of the landfill. Within 3 miles of the site, an estimated 1,990 people reside in 525 dwellings which are served by private water supply wells. The closest residence is located approximately 1/2 mile south of the site. The Dixie Caverns, a local tourist attraction, is located a mile downstream of the site.

**Site Responsibility:** This site is being addressed through Federal and potentially responsible parties' actions

### NPL LISTING HISTORY

Proposed Date: 01/22/87

Final Date: 10/04/89

## Threats and Contaminants

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The on-site sludge pit soil was found to be contaminated primarily with aromatic and polycyclic aromatic hydrocarbons (PAHs) from former disposal practices. Organic chemical contamination also was found in the soils in the drum disposal area. Runoff water from the fly ash pile has contaminated the drainage area with metals. Contamination also has been found in stream sediments immediately downstream of the fly ash pile. Conditions at the site are a threat to surface water. Those who accidentally ingest or come into direct contact with contaminated surface water, soil, or sediments may be at risk.



## Cleanup Approach

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Removal actions addressing the sludge pit and drum disposal area were completed in 1988. The remaining areas of the site are being addressed in two stages: immediate actions involving removal of the contaminated stream sediments and long-term remedial action focusing on cleanup of the fly ash pile.

## Response Action Status

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**Immediate Actions:** The EPA conducted a site inspection in 1983 and observed four potential sources of hazardous waste contamination: a drum disposal area, a sludge pit, a fly ash pile, and uncontrolled runoff from the site entering local streams. Drums and contaminated soils were removed from the drum debris area and sludge and contaminated soils were removed from the sludge pit, stabilized, and disposed of in an on-site landfill. The potentially responsible parties are removing contaminated stream sediments under an EPA removal order.



**Fly Ash Disposal Area:** In 1991, a remedy was selected to address the 9,000 cubic yards of fly ash waste. The selected remedy is excavation of the fly ash pile and off-site treatment using a method known as high temperature metals recovery. Cleanup actions began in 1995 and are scheduled for completion by the end of the year.



**Remaining Site Areas:** Site studies completed in the summer of 1992 determined that once the fly ash pile and contaminated stream sediments have been addressed, no further actions will be necessary at the site.

## Environmental Progress



The County of Roanoke cleaned up two areas of the site by removing contaminated soil from the drum debris area and the sludge pit. These immediate actions have reduced the potential of exposure to hazardous materials while cleanup of the fly ash pile are underway.

## Site Repository



Roanoke County Public Library, Glenvar Branch Library, 8917 Daugherty Road, Salem, VA 24153



# FIRST PIEDMONT ROCK QUARRY (ROUTE 719)

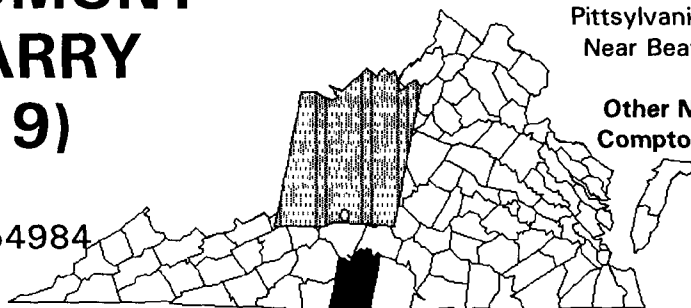
VIRGINIA

EPA ID# VAD980554984

EPA REGION 3

Pittsylvania County  
Near Beaver Park

Other Names:  
Compton Farm



## Site Description

The 4-acre First Piedmont Rock Quarry (Route 719), part of a 182-acre farm, was leased by First Piedmont in 1970. Between 1970 and 1972, First Piedmont disposed of 65,000 cubic yards of waste material into the quarry, including 15,000 gallons of liquid waste generated by Goodyear Tire & Rubber Company. The Virginia State Health Department ordered the site closed after a fire, possibly caused by spontaneous combustion of waste materials buried in the quarry. First Piedmont subsequently capped the site with 2 feet of local soil. The site is adjacent to a residential development of approximately 260 people. Approximately 380 people live within 1 mile of the site and an estimated 1,800 people live within 2 miles of the site. Without further action, contaminants in soils on site have the potential of migrating into surface water which drains the area.

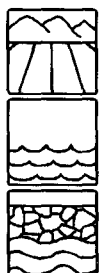
**Site Responsibility:** This site is being addressed through Federal and potentially responsible parties' actions.

### NPL LISTING HISTORY

Proposed Date: 04/10/85

Final Date: 07/22/87

## Threats and Contaminants



Early sampling has shown elevated levels of heavy metals including arsenic, chromium, lead, and zinc from former disposal practices in the soils on the site. Elevated levels of lead and zinc have been found in surface water. Iron and manganese were detected at low levels in two of the residential wells, both of which are located upgradient of the site. Initial and subsequent investigation showed no immediate threats to residents. Potential risks to individuals exist through direct contact with or accidental ingestion of contaminated leachate, surface water, or soils. Nearby Lawless and Fall Creeks could potentially be affected by site contamination.



## Cleanup Approach

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This site is being addressed in a long-term remedial phase focusing on cleanup of the entire site.

## Response Action Status

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**Entire Site:** An investigation to determine the extent of contamination from the landfill to groundwater, domestic residential wells, surface water, soils, and sediments was started in late 1987 by the parties potentially responsible for the site contamination. Based on the results of this investigation, a cleanup remedy was selected in 1991 which includes capping a landfill on the site; collecting and treating leachate from that landfill; excavating and disposing contaminated soils off site; and excavating, solidifying, and disposing of soils and sediments from the Northern Drainage Area, the Waste Pile, and the Carbon Black Pile off site. Construction of these remedies began in mid-1994 and cleanup activities are expected to be completed in 1995.

**Site Facts:** In December 1987, First Piedmont, Corning Glass Works, and Goodyear Tire & Rubber Company signed a Consent Order to conduct an investigation into the extent of the contamination and to identify alternative technologies available for cleanup. In July 1992, the EPA issued an Administrative Order to First Piedmont, Corning Glass Works, and Goodyear compelling them to design and perform cleanup actions.

## Environmental Progress



In an effort to update site information and to satisfy community concerns, 10 residential drinking water wells were sampled by the EPA and the Virginia Department of Environmental Quality in the fall of 1993. The sampling results indicate that residential wells are producing water that is within currently acceptable EPA water-quality standards. Additional groundwater sampling was conducted in 1994 and similar results were achieved. In February 1993, the Virginia Department of Health issued a draft Public Health Assessment which concluded that the site, once fenced, would pose no public health threat. The site is now completely fenced.

## Site Repository

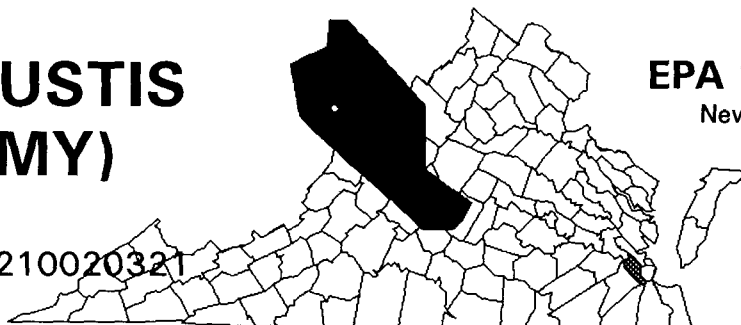


Pittsylvania County Public Library, 24 Military Drive, Chatham, VA 24531



# FORT EUSTIS (US ARMY) VIRGINIA

EPA ID# VA6210020321



**EPA REGION 3**  
Newport News

## Site Description

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The Fort Eustis (US ARMY) site occupies approximately 8,300 acres in southeastern Virginia, within the city of Newport News. Fort Eustis is owned and operated by the U.S. Department of the Army and is located on the western side of a low-lying peninsula formed by the York River and the James River estuaries. This peninsula is approximately 30 miles upstream of the confluence of the James River and the Chesapeake Bay. The facility is bounded on the west and south by the James River and to the east by the Warwick River, a large tributary of the James River. The James River is a major commercial fishing and recreational resource; it is the third largest tidal tributary of the Chesapeake Bay and the most productive estuary in Virginia. The site began operations in 1918 as a training center known as Camp Abraham Eustis. In 1923, it became a permanent military installation renamed Fort Eustis. From 1931 to the early 1940s, several non-military federal agencies operated the facility. During World War II, it resumed military operations and was used intensively for anti-aircraft training. In 1946, Fort Eustis became the Transportation Corps Training Center, providing operations training in rail, marine, amphibious, and other modes of transportation. In 1988, the U.S. Army Toxic and Hazardous Materials Agency identified 34 potential waste sources at Fort Eustis. The sources include unlined landfills, pesticide storage areas, firefighting training areas, maintenance shops, and range and impact areas resulting from anti-aircraft training activities. A landfill that received hazardous wastes is located at the headwaters of Bailey's Creek, a 160-acre wetland area adjacent to the site. In addition, the Central Heating Fuel Spill Area, where the Army stored waste oils, is on a bluff overlooking the creek. The Army is in the process of closing the sanitary landfills at the site. Other contamination sources are located in the north-central part of the installation near Brown's Lake and the Warwick River. Brown's Lake once was used as a drainage lagoon for the adjacent Helicopter Maintenance Area (HMA) and the Locomotive Area upgradient of the lake. People used the lake for recreational purposes until the Fort Eustis Preventive Medicine Group closed it to water sports and fishing in the late 1970s. Brown's Lake flows south through a sanitary landfill that is adjacent to the HMA and enters wetlands along the Warwick River and Milstead Island Creek drainage way. Both the Warwick River and Milstead Creek are used for fishing. Approximately 17,500 military personnel, their dependents, and civilians live or work at the installation.

**Site Responsibility:** The site is being addressed through Federal actions.

**NPL LISTING HISTORY**  
Proposed Date: 01/18/94



## Threats and Contaminants

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Sampling conducted in 1987 and 1990 indicated contamination of sediments in Bailey's Creek. Contaminants include polychlorinated biphenyls (PCBs), lead and pesticides such as chlordane, DDD, DDE, and DDT. Fish collected from Bailey's Creek contained PCBs. A 1990 survey of Brown's Lake revealed that fish had lesions, ectoparasites, and skeletal deformities. Surface water in the lake is contaminated with PCBs, pesticides, and polyaromatic hydrocarbons (PAHs). Sediment samples revealed PCB and heavy metal contamination in the lake and in a tributary to the lake below the Locomotive Area. Sampling in Milstead Island Creek found sediments contaminated with PAHs and pesticides. Wetland areas surround the site and are used for recreational and fishing purposes. The James River, which borders the site, is the third largest tidal tributary of the Chesapeake Bay and the most productive estuary in Virginia.

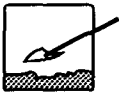
## Cleanup Approach

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The site currently is being addressed through initial actions; several long-term remedial phases are being planned that will focus on cleaning up specific areas of contamination. Currently, there are 26 areas under investigation for possible long-term cleanup actions. These areas include landfills, dredging areas, storage tanks, an explosion area, and firefighting training areas.

## Response Action Status

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**Initial Actions:** The Army constructed caps over two landfills, Landfill No. 7 and Landfill No. 15, to prevent the migration of contaminants. These actions were completed in mid-1994.



**Entire Site:** Investigations are underway at 26 areas of contamination at the Fort Eustis (US ARMY) site. The investigations will determine the nature and extent of contamination at the landfills, firefighting training areas, dredging areas, an explosion area, and storage tank areas. Once completed, the studies will lead to the selection of final cleanup remedies.

**Site Facts:** Late in 1994, the EPA and the Army are scheduled to begin negotiating a Federal Facility Agreement. This FFA will finalize responsibility for long-term cleanup of the Fort Eustis (US ARMY) site.



## Environmental Progress



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Following the capping of Landfill No. 7 and Landfill No. 15, the EPA has determined that the Fort Eustis (US ARMY) site poses no immediate threat to human health or the environment while site studies are underway.

## Site Repository



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Not yet established.

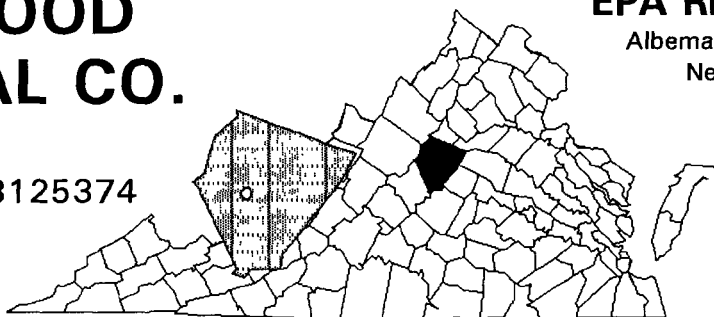


# GREENWOOD CHEMICAL CO. VIRGINIA

EPA ID# VAD003125374

## EPA REGION 3

Albemarle County  
Newton



### Site Description

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The 18-acre Greenwood Chemical Co. site operated as a chemical manufacturing plant for 40 years. The now inactive facility manufactured specialty chemicals for the industrial, pesticide, and pharmaceutical trades. The facility ceased operation in 1985 after a toluene vapor explosion and fire which killed four workers. Waste disposal at the site included seven waste treatment lagoons, approximately 500 buried drums, 100 drums on the surface, and an unknown quantity of contaminated soil. Drums were broken, leaking, and uncapped; soils were stained; and vegetation was stressed. There are approximately 1,600 people living within 3 miles of the site. The site is surrounded by homes, farms, and community buildings. Private wells within 3 miles of the site are the sole source of drinking water for an estimated 1,600 people. The nearest well is within 600 feet of one of the site's lagoons. The site threatens an unnamed tributary to Stockton Creek for a distance of about 3,200 feet downstream from one of the lagoons and along the pathway of surface water migration. This tributary discharges into Stockton Creek, which is 1 mile downstream.

**Site Responsibility:** This site is being addressed through Federal actions.

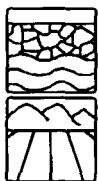
#### NPL LISTING HISTORY

Proposed Date: 01/22/87

Final Date: 07/22/87

### Threats and Contaminants

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Specific contaminants detected in on-site groundwater and soils include volatile organic compounds (VOCs) such as toluene and chloroform, semi-volatile organic compounds such as naphthalene, and inorganic contaminants such as arsenic, from former plant operations. On-site lagoon sludge contains VOCs, including toluene and benzene, as well as cyanide. Potential health threats include accidental ingestion of or direct contact with contaminated groundwater, soils, or sludges.

### Cleanup Approach

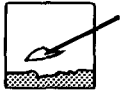
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This site is being addressed in four stages: emergency actions completed in early 1993 and three long-term remedial phases focusing on cleanup of surface soils, groundwater and lagoon water, and subsurface soils. Additional phases may be added as the design and clean up process continues.



## Response Action Status

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**Emergency Actions:** Emergency actions performed by the EPA in 1987 included excavation and disposal of an estimated 500 previously buried drums; removal and disposal of an estimated 100 surface drums; drainage and treatment of liquids from three lagoons; removal and stabilization of sludges and underlying soils from three lagoons; and removal and disposal of all shock-sensitive, explosive, highly flammable, or highly toxic materials. In 1992, the EPA began demolishing several former chemical processing buildings. Off-site disposal of construction debris stored in roll-off containers was completed in 1993. Abandoned chemicals remaining after site operations ceased also were shipped off site for proper treatment and disposal in 1993.



**Soil:** Based on the site investigations, the EPA selected a remedy to address contaminated soils in specific areas of the site such as the former lagoons, the drum disposal area, and the former chemical process buildings. The remedy selected involves off-site incineration, stabilization/solidification, and disposal. Cleanup activities began in late 1994 and are scheduled to be completed in late 1995.



**Groundwater:** Upon completion of a site study in 1990, the EPA decided to treat contaminated groundwater and lagoon water through precipitation and ultraviolet/oxidation. An engineering design began in spring 1993 and is scheduled for completion in 1996. The design will include a groundwater and lagoon water collection system and on-site treatment plant. Treated effluent will be discharged to an adjacent unnamed tributary to Stockton Creek.



**Subsurface Soils:** In 1991 and 1992, further investigation to determine the nature and extent of subsurface soil contamination was conducted. A component of the subsurface soils evaluation is the performance of an expanded in-situ treatability (bioventing) study in the former process building area. This study began in the fall of 1993 and was completed in 1995. A final study is expected to be provided later in 1995. This investigation will assist the EPA in selecting a remedy for final cleanup of the subsurface soils.

## Environmental Progress



The numerous emergency actions performed by the EPA have eliminated immediate threats to nearby residents and the surroundings while final cleanup actions at the Greenwood Chemical Co. site are underway.

## Site Repository

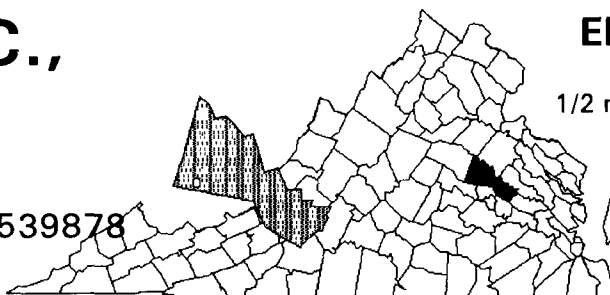


Jefferson-Madison Regional Library, 201 East Market Street, Charlottesville, VA 22553



# H & H INC., BURN PIT VIRGINIA

EPA ID# VAD980539878



## EPA REGION 3

Hanover County  
1/2 mile south of Farrington

Other Names:  
H & H, Inc.

### Site Description

The 1-acre H & H Inc., Burn Pit site was used by Haskell Chemical Company for the disposal of solvents containing printing inks and paint manufacturing wastes between 1960 and 1976. These materials were collected in drums, transported by the Haskell Chemical Company in Richmond to the site, emptied into a shallow unlined pit, and burned. EPA sampling in 1984 indicated that polychlorinated biphenyls (PCBs) were being discharged off site through surface drainage. Approximately 600 people live within a mile of the site. The nearest residence is 1/2 mile away, and the nearest well is about 1,000 feet from the site. About 2,400 people draw drinking water from private wells within 3 miles of the site. Surface waters within 3 miles downstream of the site are used for fishing.

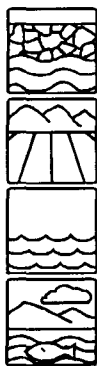
**Site Responsibility:** This site is being addressed through Federal and potentially responsible parties' actions.

#### NPL LISTING HISTORY

Proposed Date: 01/22/87

Final Date: 03/31/89

### Threats and Contaminants



The groundwater is contaminated with pesticides and low levels of volatile organic compounds (VOCs) including benzene and toluene, as well as heavy metals including chromium, barium, and beryllium from former site activities. Soil is contaminated with PCBs, metals, and phthalates. Leachate is contaminated with VOCs including phthalates, vinyl chloride, toluene, and xylenes. Sediments are contaminated with PCBs and metals. Although the source of contamination has been removed, there is a potential that a contaminant plume may still affect private wells. The contaminated aquifer is the sole source of drinking water for residents in the area. Those who accidentally ingest or come in direct contact with contaminated groundwater, soil, leachate, or sediments may be at risk. The site runoff drains into an area designated by the U.S. Fish and Wildlife Service as a freshwater wetland within 3,000 feet of the pit.



## Cleanup Approach

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This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

## Response Action Status

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**Immediate Actions:** In response to a State order, H & H, Inc. and the Haskell Chemical Company removed contaminated soil, installed monitoring wells, and took measures to control erosion and sedimentation in 1982.



**Entire Site:** The EPA has completed a study of the nature and extent of groundwater, soil, and other contamination at the site, and is considering alternatives for cleanup. The final remedy is scheduled to be selected in late 1995.

## Environmental Progress



Immediate actions performed at the site, including the removal of contaminated soil, installation of monitoring wells, and erosion control, have reduced the potential for exposure to contaminants at the H & H Inc., Burn Pit site while a decision on a site-wide cleanup remedy is finalized.

## Site Repository



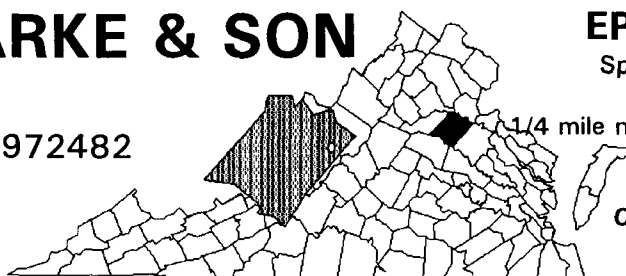
Pamunkey Regional Library, Ashland Branch 102 South Railroad Ave. Ashland, VA 23005



# L. A. CLARKE & SON

## VIRGINIA

EPA ID# VAD007972482



### EPA REGION 3

Spotsylvania County  
Fredericksburg  
1/4 mile north of Massaponax Creek

Other Names:  
Clarke, L.A. & Son

## Site Description

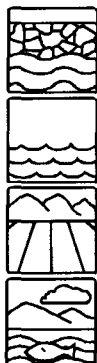
L.A. Clarke & Son, a railroad tie and wood treatment plant, is located southeast of Fredericksburg. Wood preserving operations began at the site in 1937 and continued through 1988, with one inactive period lasting approximately 1 year from 1979 to 1980. The facility no longer is in operation. During the past 50 years, creosote contamination that resulted from facility operation spills, waste streams entering the drainage ditches, and on-site disposal has affected the soil, groundwater, surface water, and sediments. Historical aerial photography indicates that from at least 1953 through 1975, wastewater was disposed of in two concrete-lined pits. Also, an area north of the process facility received wastes. Overflow from the concrete pits was stored in an earthen pit. Excess water also was discharged to drainage ditches and was sprayed on the ground around the storage yard to control dust. Four additional wastewater pits, which date back to 1937, were filled in by 1979. In 1975, L.A. Clarke & Son was issued a National Pollutant Discharge Elimination System (NPDES) permit for outfalls from two on-site drainage ditches; these permits are still in effect. Sixty-three homes are located within a 4,000-foot radius of the site, and 1,500 people live within a mile of the site. The population within 3 miles of the site is 4,500. The shallow contaminated aquifer underlying the site only has limited use at the present time as a source of drinking water, but has the potential for wider use in the future, due to increased development in the area.

**Site Responsibility:** This site is being addressed through Federal and potentially responsible parties' actions.

#### NPL LISTING HISTORY

Proposed Date: 10/15/84  
Final Date: 06/10/86

## Threats and Contaminants



The shallow aquifer underlying the site is contaminated with creosote derivatives from former site activities. Sediments, soils, and surface water are contaminated with creosote compounds and by-products including polynuclear aromatics (PNAs) and benzene. Potential health risks exist if people inhale contaminated vapors or dust or accidentally ingest or come in direct contact with contaminated soil, sediments, or surface water. Exposure to contaminants also could occur from wading or swimming in Massaponax Creek, West Vaco Pond, or Ruffins Pond. Fish and waterfowl may be contaminated and could pose health risks to individuals who ingest them.



## Cleanup Approach

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The site is being addressed in three long-term remedial phases designed to clean up the soil, the groundwater and sediment, and the lagoon.

## Response Action Status

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**Soil:** The EPA completed an investigation into the extent of the site contamination in 1988. Based on this study, cleanup plans for soil included in-place soil flushing and on-site landfarming (soil biodegradation) of contaminated soils and sediments.

However, with the closing of the wood treating operations, the in-place soil flushing was deleted as part of the site remedy. Excavation, dredging, and on-site consolidation of contaminated sediment, subsurface soil, and buried pit materials also will be addressed in this phase of the site cleanup. In 1990, the Richmond, Fredericksburg, and Potomac (RF & P) Railroad began treatability studies to determine the effectiveness of the technologies to be used in the cleanup. Demolition of the wood treating facility was completed in 1993. Remaining cleanup activities will be completed in 1995.



**Groundwater and Sediment:** In 1990, RF & P Railroad began a study to determine the extent of groundwater and sediment contamination and to identify alternative technologies for cleaning up the site. This study is scheduled for completion in 1995, at which time a remedy for final cleanup will be selected.



**Lagoon:** Removal and treatment of the subsurface water in the lagoon was completed in early 1995. Currently, removal and off-site treatment of the lagoon sludge is underway.

**Site Facts:** A Consent Decree was signed with RF & P Railroad to conduct the first phase of the cleanup work. The Decree became effective in 1989.

## Environmental Progress



Demolition of the wood treating facility, landfarming at the site, and cleanup of the lagoon have reduced threats to the public and environment while additional studies are ongoing.

## Site Repository

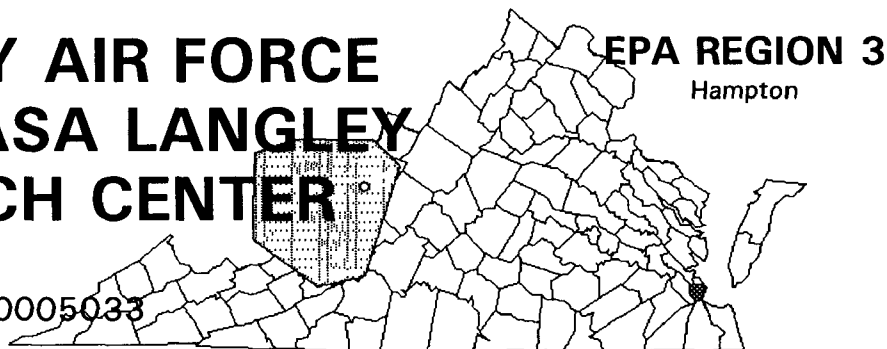


County Administrator's Office, 9104 Courthouse Road, Spotsylvania, VA 22553



# LANGLEY AIR FORCE BASE/NASA LANGLEY RESEARCH CENTER VIRGINIA

EPA ID# VA2800005033



## Site Description

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The Langley Air Force Base (LAFB)/NASA Langley Research Center (NASA Langley) site consists of two adjacent Federal facilities on a peninsula separating the Northwest and Southwest branches of the Back River. Residential developments, rural areas, and intertidal wetlands surround the two facilities. LAFB covers 3,152 acres and NASA Langley covers 787 acres. LAFB has been an airfield and aeronautical research center since 1917 and is the home base for the First Tactical Fighter Wing. NASA Langley is a research facility that conducts numerous operations in nearly 200 buildings and operates 40 wind tunnels. Wastes generated at NASA Langley include waste oils, solvents, paint wastes, pesticide containers and rinse waters, photographic wastes, scrap materials, used batteries, and printed circuit board plating wastes. Polychlorinated biphenyls (PCBs) and polychlorinated terphenyls (PCTs) were used in hydraulic systems, electrical equipment, compressors, and casting operations. There are more than 40 sources of possible contamination at the two facilities. These sources include abandoned landfills, fueling areas, wastewater treatment plants, the storm water system, warehouses, spill sites, electrical substations and transformers, fuel tanks, burning areas, septic tanks, storage areas, waste pits, and training areas. LAFB supports more than 10,000 employees and NASA Langley employs 5,000 people. The Back River supports commercial and recreational crab, oyster, quahog, and fin fishing, and its two branches form a tidal estuary that empties into the Chesapeake Bay.

**Site Responsibility:** The site is being addressed through Federal actions.

### NPL LISTING HISTORY

Proposed Date: 05/10/93

Final Date: 05/31/94



## Threats and Contaminants

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Soils at the landfills are contaminated with waste solvents and paints, used batteries, scrap metals, pesticides, municipal wastes, general chemicals, sanitary refuse, photofinishing wastes, and hospital and laboratory wastes. Groundwater is contaminated with lead, cadmium, silver, and phenols. Information indicates this area historically has been predominantly wetlands. Sediments and biota in the Back River and Tabbs Creek are contaminated extensively with PCBs and PCTs. Tabbs Creek has been posted as a "No Fishing" area because of coliform contamination. Electrical equipment containing PCBs and lubricating oils, hydraulic fluids, mercury, and pesticides have been released on the site. Touching or ingesting contaminated soils, groundwater, sediments, or fish could pose a health risk.

## Cleanup Approach

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The site is currently being addressed in two long term remedial stages focusing on the cleanup of the source areas and Back River and Tabbs Creek. Other stages will be added as they are defined.

## Response Action Status

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**Source Areas:** The EPA is conducting investigations into the nature and extent of contamination at each of the source areas. Investigations have begun at the Construction Debris Landfill, Storm Sewers, Old CE Paint Shop, Abandoned Entomology Building, and Wastewater Treatment Plant. Remedies for final cleanup will be selected as the investigations are completed.



**Back River and Tabbs Creek:** The EPA is planning an investigation into the nature and extent of contamination of the Back River and Tabbs Creek. After the investigation has been completed, a remedy for cleanup of the Back River and Tabbs Creek will be selected.

## Environmental Progress



The EPA has determined that the site does not pose an immediate threat to the public or the environment while investigations leading to site cleanup are underway.



## Site Repository



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Poquoson Public Library, 774 Poquoson Ave., Poquoson, VA 23662  
York County Public Library, 8500 George Washington Highway, Yorktown, VA 23692  
Hampton Central Library, 4207 Victoria Blvd., Hampton, VA 23669  
Floyd L. Thompson Library, NASA Langley Research Center, Hampton, VA 23665



# MARINE CORPS COMBAT DEVELOPMENT COMMAND VIRGINIA

EPA ID# VA1170024722

## EPA REGION 3

Prince William, Stafford, and Fauquier  
Counties  
Quantico

### Site Description

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The Marine Corps Combat Development Command site (MCCDC) is a 56,000-acre military training facility that overlaps areas in Prince William, Northern Stafford, and Eastern Fauquier counties. The base is located in Quantico, Virginia, about 35 miles south of Washington, D.C. on the Potomac River. Operations began at MCCDC in 1917, when the Department of Defense established a new Marine training camp. A large expansion in the size of the facility occurred in 1943. The MCCDC prepares Marine Corps officers for general combat by providing them with an understanding of technical operations and by performing research and development on military equipment. Nine areas of potential concern were identified by the Navy. One area, the Old Landfill, which was the primary landfill for the base from the 1920s until 1971, covers about 8 acres and is located along the west bank of the Potomac River. The northern portion of the Old Landfill, which is known as the Defense Reutilization Marketing Office Storage Yard, was used for the draining and storage of electrical transformers. Another area, the Recently Closed Landfill, accepted waste, including paints and solvents from 1971 until 1983 and covers about 28 acres. The Old Batch Plant is a 30 feet by 50 feet area that was used in the 1970s for the storage of electrical transformers. The majority of the Old Batch Plant area is paved, and some of the paved areas are covered with soil. Surface water runoff from the Old Batch Plant area drains into the Potomac River. The Pesticide Burial Area consists of a disposal pit measuring 16 feet in diameter and 8 feet deep, and the Arsenic Burial Area was once used for the disposal of 27 drums of an arsenic product used to control weed growth. Other areas include the Aero Club, Former Rifle Range, and Fire Training Area. MCCDC is bordered by Prince William Forest Park to the north and the Potomac River to the east. The western and southern portions of the base include residential areas.

**Site Responsibility:** The site is being addressed through  
Federal actions.

#### NPL LISTING HISTORY

Proposed Date: 05/10/93

Final Date: 05/31/94



## Threats and Contaminants

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Operations at the Old Landfill have lead to polychlorinated biphenyl (PCB) contamination of the soils, groundwater, and sediments in the Potomac River. The Recently Closed Landfill is leaking leachate contaminated with volatile organic compounds (VOCs) into shallow groundwater. Soils at the Old Batch Plant are contaminated with PCBs. Soil in the Pesticide Burial area is contaminated with pesticides and heavy metals, particularly arsenic. People who touch or ingest contaminated soil, sediments, or groundwater may be at risk.

## Cleanup Approach

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This site is being addressed in a long-term remedial phase focusing on the cleanup of the entire site.

## Response Action Status

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**Entire Site:** Studies of the nature and extent of contamination at each of the nine potential source areas are being planned. No contamination was found at the Arsenic Burial Area, therefore no further investigation is required. Groundwater monitoring will continue here for five years.

**Site Facts:** MCCDC is participating in the Installation Restoration Program (IRP), a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities.

## Environmental Progress



The Navy and the EPA have determined that the site does not pose immediate threats while a full-scale study of the nature and extent of contamination at the site is being planned.

## Site Repository



Not yet established.

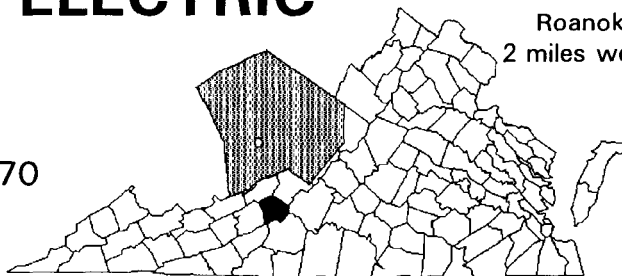


# MATTHEWS ELECTRIC PLATING VIRGINIA

EPA ID# VAD980712970

## EPA REGION 3

Roanoke County  
2 miles west of Salem



### Site Description

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From 1972 to 1977, the 1 3/4-acre Matthews Electric Plating site housed a facility that plated automobile bumpers with a process using chromium and nickel. Beginning in 1975, surface water and groundwater contamination associated with the electroplating operation was noted by area residents. Liquid waste from the operation had been discharged directly onto the ground and drained to a sinkhole beneath the property. The Virginia State Water Control Board (VSWCB) began residential monitoring of 30 wells. Subsequent investigations were performed by the VSWCB and the EPA to determine the extent of the contamination. In 1976, the VSWCB issued an Emergency Order that prohibited the further discharge of electroplating waste from the plant. The facility went out of business in 1977 and was used as a small-scale pig farming operation. The population within 3 miles of the site is approximately 3,000. One on-site well and ten local residential wells were contaminated.

**Site Responsibility:** This site was addressed through Federal and State actions.

#### NPL LISTING HISTORY

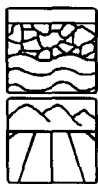
Proposed Date: 10/23/81

Final Date: 09/08/83

Deleted Date: 01/19/89

### Threats and Contaminants

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Groundwater was contaminated with chromium residues from the former electroplating operations. Soil was contaminated with chromium, nickel, and cadmium. Those who accidentally ingested or came in direct contact with contaminated groundwater or soil were at risk.

### Cleanup Approach

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#### Response Action Status

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**Immediate Actions:** In 1979, the owner of the property removed waste materials, constructed diversion ditches, and covered parts of the area with clay. In 1988, the EPA removed approximately 1,500 gallons of waste solution and sludges.





**Entire Site:** The selected remedy included construction of an extension of the municipal water supply from the water treatment plant in Salem. The EPA constructed the water line, and 28 homes were connected in 1986. In 1987, the EPA conducted sampling, and results showed no further cleanup actions were needed. This site was deleted from the NPL in December 1988.

**Site Facts:** Potential public health and environmental hazards first were identified when concerned residents notified the VSWCB of discolored drinking water in November 1975.

## Environmental Progress



By removing waste materials, constructing diversion ditches, covering the site with clay, and extending a municipal water supply to affected residences, the contamination at the Matthews Electric Plating site has been eliminated. Following subsequent site evaluations, the EPA, in conjunction with the Commonwealth of Virginia, determined that the site no longer posed a threat to public health or the environment and deleted the site from the NPL in 1989.



# NAVAL SURFACE WARFARE CENTER- DAHLGREN VIRGINIA

EPA ID# VA7170024684

## EPA REGION 3

King George County  
Dahlgren



## Site Description

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The Naval Surface Warfare Center-Dahlgren (NSWC) is approximately 4,300 acres in size and located 40 miles south of Washington, D.C. along the Potomac River. This naval facility, established in 1918, conducts research, development, testing, and evaluation of surface ship weaponry for the Navy. The first of two areas that make up NSWC is known as the Main Site. Activities conducted at this 2,678-acre area include air operations and ordnance testing. Laboratories, computer facilities, administrative offices, and residences also are located at the Main Site. The Explosive Experimental Area (EEA), the second of the two areas, is an isolated testing range located on 1,614 acres. These two areas are separated by the Upper Machodoc Creek. In 1983, the Navy identified seven sources of contamination at the site, and in 1986 confirmed the need for additional studies at ten areas of the site. Three of these areas are identified as: the 1400 Area Landfill (Site 17), the Pesticide Rinse Area (Site 25), and the Transformer Draining Area (Site 19). The 1400 Area Landfill, 5 to 10 acres in size, received municipal waste for three years in the 1970s. Canisters of mercury also may have been disposed of in this area. Pesticide containers were drained and rinsed at the Pesticide Rinse Area while electrical transformer oil containing polychlorinated biphenyls (PCBs) was drained at the Transformer Draining Area. Two aquifers underlying NSWC serve as the drinking water source of the nearby population: the shallow Nanjemoy aquifer, which supplies a small number of private residences, and the deeper Potomac Group aquifer, which supplies the municipal and NSWC water systems. Wetlands along Gambo Creek, an unidentified drainage area, and the Potomac River are potential areas of environmental impact. Municipal and private wells within 4 miles of the site supply an estimated 6,900 people. There are 3,200 civilians and 100 military personnel on base as well as 154 housing units.

**Site Responsibility:** This site is being addressed through Federal and State actions.

### NPL LISTING HISTORY

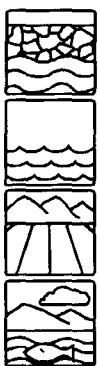
Proposed Date: 02/07/92

Final Date: 10/14/92



## Threats and Contaminants

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Low levels of mercury were detected in groundwater underlying the 1400 Area Landfill and stream sediments in the vicinity of the landfill. Sediments and the fish of Hideaway Pond, located downstream from the landfill, also are contaminated with mercury. The Potomac River receives run-off from surface water in this area. PCBs were discovered in the soil of the Transformer Area to a depth of 4 feet. Soils at the Pesticide Rinse area are contaminated with polyaromatic hydrocarbons (PAHs). People could be at risk by accidentally ingesting or coming into contact with contaminated groundwater, sediments, surface water or soils.

## Cleanup Approach

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The site is being addressed in two stages: initial actions and a long-term remedial phase focusing on cleanup of the entire site.

### Response Action Status

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**Initial Actions:** The Navy has taken initial cleanup actions at the Pesticide Rinse area of the site, including the removal of PAH-contaminated soils, which was completed in the fall of 1994. A second action is planned for the Transformer

Draining area to remove soil from a small PCB-contaminated area. This removal is scheduled to begin at the end of 1994.



**Entire Site:** In early 1992, the EPA and the Virginia Department of Waste Management reviewed the Navy's workplan for an investigation at ten areas of the NSWC site. These studies, begun in 1993, are exploring the nature and extent of contamination at the site and will identify alternative cleanup options for final remedy selection. Additional areas will be evaluated once the initial investigations are underway.

**Site Facts:** The NSWC is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities. The EPA is preparing a draft Federal Facilities Agreement to cover future activities at the site.

## Environmental Progress



The Navy is assessing the need for initial actions to remove potential sources of contamination. Initial investigations indicate the Naval Surface Warfare Center-Dahlgren site poses no immediate threat to the safety and health of the nearby population while additional investigations and activities for final cleanup of the site are ongoing.



## Site Repository

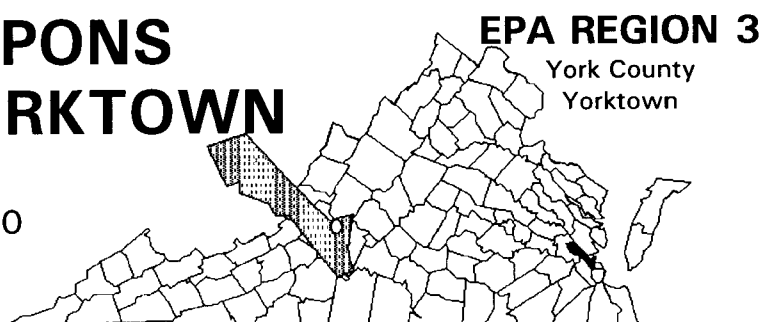


Not established.



# NAVAL WEAPONS STATION-YORKTOWN VIRGINIA

EPA ID# VA8170024170



## Site Description

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The Naval Weapons Station-Yorktown site covers 10,500 acres and is located along the York River. Administrative facilities, personnel housing, and other operational support buildings are located on site. The Colonial National Historical Park, the Whiteman Swamp, and the Naval Supply Center-Cheatham Annex surround the area. This facility was established in 1918 to maintain, produce, and store ordnance for the Navy. Various explosives, including trinitrotoluene (TNT), metals, and organics, were used in past and current operations. Twenty-one sources of contamination were identified by a series of investigations conducted from 1983 to 1989. One source, the Turkey Road Landfill (Site 2), is a 5-acre wetland area reportedly used for disposal of mercury and zinc carbon batteries, missile hardware, inert mines and bombs, construction rubble, and electrical shop hardware. Batteries from weapons, burning pad residues, fly ash from coal-fired boilers, mine casings, electrical equipment, and transformers were disposed of at the Burning Pad Residue Landfill (Site 4), another source of contamination. Wastewater containing volatile organic compounds (VOCs) and residues from explosives was discharged to the Explosive Contaminated Wastewater Impoundments (Site 6). Plant 3-Explosive Contaminated Wastewater Discharge Area (Site 7) was historically the point from which wastewater containing VOCs and explosives residues was discharged. These contaminants have migrated to surface water and sediments downstream from the site. The unlined drainage way used to transport wastewater from the impoundments to the discharge point, known as Plant 1-Site 9 of the Explosive Contaminated Wastewater Discharge Area, has led to contamination of surface soil. Contaminants from the explosive areas have been detected in Lee Pond, a fishery downstream from the site. Soil below a conveyor belt which was used to transport explosives also is contaminated. In 1992, after conducting further investigations, the Navy found an additional source of hazardous materials, the Battery Drum and Disposal Area, where cadmium, lead, and zinc have been detected. The York River receives surface water runoff from all of these sources of contamination. Its drainage basin includes wetlands, endangered species, and fisheries. The York River joins the Chesapeake Bay 12 miles downstream from the site. The on-base population includes 3,200 military personnel and civilians, as well as 47 housing units.

**Site Responsibility:** This site is being addressed through Federal actions.

### NPL LISTING HISTORY

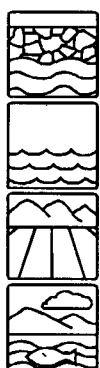
Proposed Date: 02/07/92

Final Date: 10/14/92



## Threats and Contaminants

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Groundwater, surface water, and sediments in the Barracks Road Landfill area are contaminated with organics including trichloroethene, heavy metals including mercury and cadmium, and explosives including TNT and RDX. VOCs, explosive contaminants and heavy metals have been detected in groundwater, surface water, and sediments near the Burning Pad Residue Landfill. Surface water and sediments downstream from the Explosive Contaminated Wastewater Discharge Areas are contaminated with VOCs and explosives residues. On-site soil is contaminated with explosives including TNT, RDX, and HMX. The York River drainage basin includes wetlands with endangered species and fisheries. Touching or ingesting contaminated groundwater, sediments, surface water, or soils could pose a health risk.

## Cleanup Approach

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The site is being addressed in stages: initial actions and several long-term remedial phases focusing on cleanup of the entire site.

## Response Action Status

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**Initial Actions:** The Navy has conducted a number of initial actions at the site to reduce the immediate threats of further contamination. In 1992, the Navy removed metal debris from a landfill on the site. In late 1994, the Navy completed the removal of redwater ash, batteries, bomb casings, old inert mines, transformers and nearby soils that had become contaminated, and miscellaneous debris. The ash had been collected in a pile on the site and was leaching into nearby Felgates Creek. The Navy began removing mine casings and additional miscellaneous items from the site during the summer of 1994. Additional efforts include removing two leaking "otto fuel" underground storage tanks, which are expected to be completed in 1995.



**Site 5 - Transformer:** An investigation into the nature and extent of contamination at this area was completed in mid-1993. In late 1994, the EPA reviewed the results of this investigation and determined that the Navy's removal of transformers and nearby contaminated soil was sufficient to address the contamination. No further action is anticipated at this area.



**Sites 6, 7, 12, 16, SSA:** An investigation into the nature and extent of contamination at these areas began in 1994. This study will identify alternatives for cleanup of these areas, and is expected to be completed in late 1996.

**Site Facts:** The Naval Weapons Station-Yorktown is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities. A three-party Federal Facilities Agreement between the EPA, the Commonwealth of Virginia, and the Navy became effective in February 1995.



## Environmental Progress



Contaminated material and debris have been removed from numerous areas on the site. As a result, the Naval Weapons Station-Yorktown does not pose an immediate threat to the health and safety of the nearby population while additional investigations and activities are being planned for final cleanup of the site.



## Site Repository

York County Public Library  
8500 George Washington Highway  
Yorktown, VA 23692  
804/898-0077

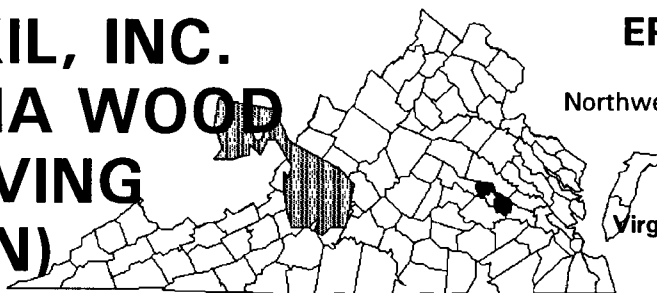
Jamestown-Williamsburg Library  
515 Scotland St.  
Williamsburg, VA 23186  
804/229-7326



# RENTOKIL, INC. (VIRGINIA WOOD PRESERVING DIVISION)

VIRGINIA

EPA ID# VAD071040752



## EPA REGION 3

Henrico County  
Northwest of Richmond near I-95

Other Names:  
Virginia Wood Preservers

## Site Description

The 10-acre Rentokil, Inc. (Virginia Wood Preserving Division) site was a wood preserving plant and ceased operations in 1990. Virginia Properties, Inc. owns 5 acres and leased the adjacent 5 acres from an affiliate of the RF&P Railroad. The original plant was built by the Virginia Wood Preserving Company in 1956. Since 1982, the operation used only the chromated copper arsenate (CCA) process to treat wood. In previous years, pentachlorophenol (PCP), creosote, chromated zinc arsenate, xylene, ammonium phosphates, and sulfates also were used. Preserving processes also required the plant to use mineral spirits and fuel oil. Operators disposed of chemical wastes in an unlined lagoon until 1974. In 1976 or 1977, workers buried 1,100 to 1,400 pounds of CCA at the site. They also improperly installed several wells, later abandoned, which may have spread groundwater contamination. The area is mixed light industrial and residential and is located on the outskirts of Richmond. The population within a 1-mile radius of the site is about 1,500. When the site was placed on the NPL, approximately 350 people used drinking water from wells drilled into the aquifers of concern. Runoff from the site enters nearby wetlands and an unnamed stream that flows into North Run. Occasionally, stormwater flows off site into the municipal storm sewer and the stream. North Run is used for swimming and is located within 1 1/2 miles of the site.

**Site Responsibility:** This site is being addressed through Federal, local, and potentially responsible parties' actions.

### NPL LISTING HISTORY

Proposed Date: 01/22/87

Final Date: 03/31/89

## Threats and Contaminants



The groundwater, soil, and surface water are contaminated with PCP, creosote derivatives, copper, chromium, arsenic, and dioxin from former wood preserving operations. Potential risks exist if individuals accidentally ingest or come in direct contact with contaminated groundwater, surface water, or soil. Contaminated surface water may have an effect on nearby livestock or crops if it is used for watering or irrigation. Nearby wetlands may be adversely affected by site runoff.



## Cleanup Approach

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The site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

## Response Action Status

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**Immediate Actions:** In 1987, public water lines were extended to residents living next to the site by Henrico County. Later that year, the owner of the facility removed and incinerated some contaminated organic sludge from an on-site, unlined surface impoundment. In the spring of 1991, all of the wood treatment equipment was removed from the site, including the above ground storage tanks and treatment cylinders. In June 1992, a sediment trap and berm were constructed between the site and the unknown tributary to North Run to prevent further migration of sediment containing arsenic, chromium, copper, and zinc.



**Entire Site:** The parties potentially responsible for the site contamination began a study of the site in 1987 to determine the nature and extent of water and soil pollution and evaluate different strategies for final cleanup. In June 1993, the investigations were completed, and the EPA selected a final remedy to clean up the contamination at the site. The major components of the selected remedy include: demolition, decontamination and off-site disposal of the existing structures; excavation and off-site incineration of the sediments in the unlined pond; construction of a cap; excavation, low temperature thermal desorption and on-site disposal of "hot spot" soil; construction of a slurry wall and a dewatering system within the cap and slurry walls; institutional controls to prevent residential development; and groundwater monitoring. The design phase of the remedy began in the spring of 1994, and is scheduled for completion in early 1996.

**Site Facts:** In 1987, Rentokil and the EPA signed a Consent Order to conduct a study to determine the nature and extent of contamination and to identify alternatives for cleanup. In March 1992, Virginia Properties, Inc. (a wholly owned subsidiary of Rentokil) and the EPA entered into a Consent Order to design and construct sediment control structures. In February 1994, Virginia Properties, Inc. signed a Consent Decree to design and implement the selected remedy.

## Environmental Progress



By extending public water lines and removing and incinerating contaminated sludges, immediate threats at the Rentokil Inc. (Virginia Wood Preserving Division) site have been eliminated while further investigations are taking place and cleanup activities are being designed.

## Site Repository

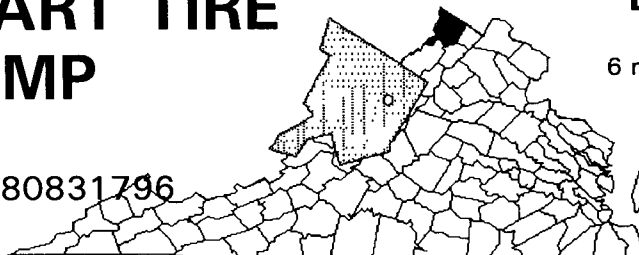


Henrico County Public Library, 1001 North Laburnum Avenue, Richmond, VA 23223



# RHINEHART TIRE FIRE DUMP VIRGINIA

EPA ID# VAD980831796



## EPA REGION 3

Frederick County  
6 miles west of Winchester

Other Names:  
Winchester Tire Fire

## Site Description

The Rhinehart Tire Fire Dump site is located on Mt. Pleasant. It originally served as a storage area for 5 to 7 million tires, until they caught fire in October 1983. The smoke plume rose several thousand feet and spread a 50-mile long trail across four states. An EPA emergency team controlled the fire within a few days, but the fire continued to smolder for 6 months. Hot oil from the burning, melting tires quickly entered nearby Massey Run. The migrating oil and firefighting residues also have contaminated the site and local waters. The site is located in an agricultural area. Approximately 75 people live within a 1-mile radius of the site, and two people live on the site itself. Residences use private wells for drinking water. The site drains into Massey Run, which flows 4,000 feet downstream of the site to Hogue Creek, a trout stream that flows into the Potomac River. A municipal water supply intake is 22 miles downstream of the site. There are two ponds on site, the larger of which is unlined. The smaller 50,000-gallon lined pond collects runoff from the site.

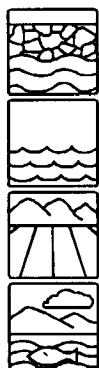
**Site Responsibility:** This site is being addressed through Federal actions.

### NPL LISTING HISTORY

Proposed Date: 10/01/84

Final Date: 06/01/86

## Threats and Contaminants



On-site groundwater is contaminated with slightly elevated levels of heavy metals including arsenic, cadmium, and lead, as well as volatile organic compounds (VOCs) including toluene and xylene. Sediments have been contaminated with oils and residues from the tire fire, in addition to heavy metals such as arsenic, cadmium, lead, nickel and zinc. The soil is contaminated with metals and low levels of polycyclic aromatic hydrocarbons (PAHs) from tire burning. Massey Run and other surface waters are contaminated with various heavy metals and VOCs. Test results revealed these surface waters to be acutely and chronically toxic. Human exposure to contaminants may occur by inhaling, coming in direct contact with, or accidentally ingesting contaminated groundwater, surface water, sediments, and soils. Eating trout with bioaccumulated contaminants from Hogue Creek is a health threat.



## Cleanup Approach

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This site is being addressed in four stages: emergency actions and three long-term remedial phases focusing on surface water cleanup, cleanup of Dutchman's Pond, and cleanup of the entire site.

## Response Action Status

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**Emergency Actions:** EPA emergency workers extinguished the tire fire and removed more than 800,000 gallons of oily wastes released by the burning tires. A lined catch basin was installed to trap the oil and to provide water for firefighting, and a monitoring program was initiated to identify contaminant levels on and off site. The oily wastes were recycled into fuel oil and then sold. Under orders from the EPA, the owner was required to build dikes and ditches for drainage control and to collect and pump this water to minimize migration of wastes from the site. The owner also has undertaken extensive excavation and regrading activities and has restricted access to the site. These emergency activities have successfully controlled the immediate threats to the public and the environment.



**Surface Water:** The remedies selected for site cleanup in 1988 include: instituting soil erosion controls; raising the existing dam on the unlined pond by 13 feet; collecting and treating surface water runoff; collecting shallow groundwater oily seeps; and separating water from oil and transporting it to a wastewater treatment plant. The EPA completed the engineering designs for the selected remedies in 1989. Construction of the wastewater treatment plant was completed in 1990, and operation began in early 1991. Construction of all remaining remedies was completed in early 1992 and cleanup is underway. Operation and maintenance of the surface water treatment system are currently underway.



**Dutchman's Pond:** In mid-1992, the EPA completed a study exploring methods to remove another on-site pond, Dutchman's Pond. Based on the results of this study, the EPA selected a remedy that will remove the surface water, sediments, and liner of the man-made catch basin created during the fire. The remedy calls for on- and off-site treatment and disposal of contaminated substances, and backfilling and regrading of the pond area. The EPA and U.S. Army Corps of Engineers (USACE) currently are finishing the design of this remedy and are expected to begin actual site cleanup in early 1995.



**Entire Site:** The EPA is conducting a study to investigate the potential adverse impacts to groundwater and surface water and to select the actions needed to clean and restore the existing collection pond and other off-site areas affected by the tire fire. This study, which will recommend the best strategies for final cleanup, is expected to be completed in late 1994.



**Site Facts:** The site owner agreed, under the terms of a 1984 Administrative Order, to install surface runoff controls and to perform other activities to control contaminant migration. In 1989, the EPA entered into an Administrative Consent Order with the site owners, which prevents them from altering site conditions and provides for site access and use of clean barrow material from the site to build the dam. USACE signed an Interagency Agreement with the EPA on August 26, 1994 agreeing to cooperate with the design of the remedy for Dutchman's Pond. On October 25, 1994, the EPA and the State of Virginia signed a Superfund State Contract under which Virginia will share the costs of cleanup at the site with the EPA.

## Environmental Progress



The numerous emergency actions performed by the EPA and the potentially responsible parties have reduced the potential for exposure to contaminated materials and for the further migration of contaminants while final investigations and cleanup activities are taking place at the Rhinehart Tire Fire Dump site.

## Site Repository

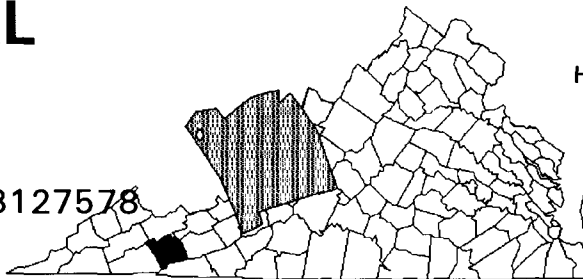


Handley Library, 100 West Piccadilly Street, Winchester, VA 22601



# SALTVILLE WASTE DISPOSAL PONDS VIRGINIA

EPA ID# VAD003127578



**EPA REGION 3**  
Smyth and Eastern Washington  
Counties  
Next to North Fork of the  
Holston River near Saltville

**Other Names:**  
Saltville Muck Pond #5  
Olin Corp. Saltville  
Waste Disposal Pond #5  
Olin Corp. Saltville  
Waste Disposal Pond #6

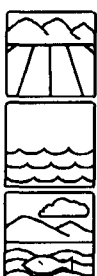
## Site Description

The Saltville Waste Disposal Ponds site consists of two large ponds, 45 and 80 acres in size, and an empty lot next to the North Fork of the Holston River (NFHR). The empty lot once held a mercury cell chlor-alkali plant operated from 1951 to 1954 by Olin Mathieson Alkali Works and from 1954 to 1972 by Olin Chemicals Corp., the current site owner. The waste disposal practices at the plant resulted in mercury contaminated wastewaters being lost daily to nearby soil and the river adjacent to the site. Workers placed mercury-contaminated wastewater and process waste from soda ash manufacturing into the two large ponds, known as ponds #5 and #6. Approximately 1,140 people live within a mile of the site. The nearest residences are located 1,300 feet from the site. The community's drinking water is obtained from uncontaminated surface springs. Since 1970, people have been advised not to eat fish from a section of the NFHR which extends from Saltville to a point approximately 6 miles into Tennessee, although catch-and-release game fishing is permitted.

**Site Responsibility:** This site is being addressed through a combination of Federal, State, and potentially responsible parties' actions.

**NPL LISTING HISTORY**  
Proposed Date: 12/01/82  
Final Date: 09/01/83

## Threats and Contaminants



Mercury from the plant's waste disposal ponds has contaminated soils and surface water. Direct contact with or accidental ingestion of soil or surface water or eating contaminated fish from the Holston River pose a health risk. The NFHR is a habitat for two endangered species remaining in the river: the fine-rayed mussel and the spotfin chub. Six other endangered species have been eliminated from the river.



## Cleanup Approach

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The site is being addressed in four stages: immediate actions and three long-term remedial phases focusing on source control, cleanup of the groundwater, and biomonitoring.

## Response Action Status

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**Immediate Actions:** In 1982, the Olin Chemicals Corp. dredged 1,000 feet of the river to remove mercury-contaminated sediments and built a diversion ditch along the western edge of pond #5. In late 1991, contaminated soil was removed to facilitate construction of a new bridge.



**Source Control:** The results of an investigation of the site called for surface water diversions, construction of a treatment plant for pond #5 outfall, and future investigations. The cleanup activities selected for this site have been organized into two phases to facilitate the work. Phase 1 focuses on cleaning up the source of contamination and assessing its effects; Phase 2 focuses in more detail on groundwater and surface water contamination. The selected remedy features: building a diversion ditch around the eastern side of pond #5 to supplement the effect of the western diversion ditch already in place; building a facility that will treat pond #5's outfall; conducting a bioassessment of the NFHR to determine the extent of site effects on biota; and developing a groundwater monitoring system. The Eastern Diversion Ditch was completed in the fall of 1991. Construction of the treatment plant was begun in the spring of 1993 and is scheduled for completion in 1995.



**Disposal Ponds:** A study to determine the nature and extent of contamination at the disposal ponds is underway. The investigation, started in 1988, is scheduled for completion in late 1994.



**Biomonitoring:** An extensive investigation will be conducted to determine the past, current, and future effects of the site on the NFHR. The study will focus on sediment and several species of biota. Selected cleanup strategies will be based on the extent of the effects. Completion of the study is expected in late 1995.

**Site Facts:** In 1982, the Olin Chemicals Corp. and the State signed a Special Order under which the owner was to dredge 1,000 feet of the river to remove contaminated sediments and to construct a diversion ditch along the edge of the western portion of pond #5. The order also required monitoring of the outfall, fish, and sediments until 1988. Under the terms of a 1988 Consent Decree, the Olin Chemicals Corp. will perform source control cleanup measures and conduct an extensive site investigation that will assess disposal ponds contamination at the site and the effects on biological resources in the NFHR.



## Environmental Progress



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The immediate actions of dredging contaminated sediment from the NFHR, building the diversion ditches to prevent mercury-contaminated outfall from entering the river, constructing a treatment facility to treat Pond #5 outfall, and cleaning up the source of contamination have reduced the potential for exposure to contaminated materials at the Saltville Waste Disposal Ponds site while additional cleanup activities are being planned.

## Site Repository



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Saltville Town Hall, Town Hall Square on Main Street, Saltville, VA 24370

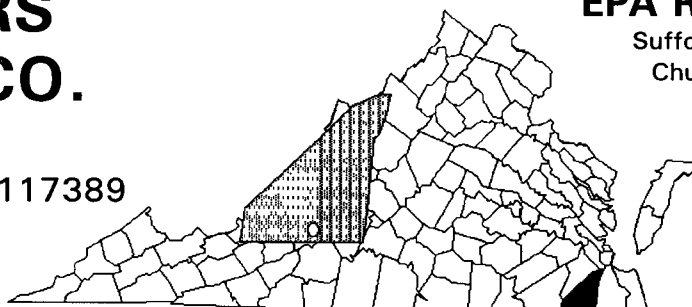


# SAUNDERS SUPPLY CO. VIRGINIA

EPA ID# VAD003117389

## EPA REGION 3

Suffolk County  
Chuckatuck



### Site Description

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The 7 1/3-acre Saunders Supply Co. site was a wood-treating plant, but ceased wood-treating operations in June 1991. The site, however, is still an active lumber yard. Between 1964 and 1984, workers used a mixture of pentachlorophenol (PCP) and fuel oil as a wood preservative. In 1974, they added a chromated copper arsenate process. Part of the spent PCP/oil mixture was disposed of by burning it in an unlined pit or in a conical burner on site, which resulted in the generation of dioxin compounds. EPA tests in 1984 detected elevated levels of chromium in Godwin's Mill Pond Reservoir, a source of drinking water for more than 30,000 people in Suffolk. The Suffolk water treatment plant, however, reported that levels in treated drinking water were well within safety limits. The tests also found PCP, chromium, and arsenic in the Columbia aquifer, which supplies private wells within 3 miles of the site. Approximately 1,300 people live within 3 miles of the site, and about 700 people are served by municipal water systems within a mile of the site.

**Site Responsibility:** This site is being addressed through Federal and State actions.

#### NPL LISTING HISTORY

Proposed Date: 01/22/87

Final Date: 10/04/89

### Threats and Contaminants

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The groundwater is contaminated with arsenic, chromium, and PCP from wood-treating process wastes. The soil is contaminated with arsenic, chromium, copper, PCP, and dioxins. Workers or trespassers may be at risk from inhalation of contaminated dust and particles or through direct contact with contaminated soil. The groundwater flow is reported to be toward the reservoir, a primary drinking water source. A nearby freshwater wetland may be threatened by site contamination.



## Cleanup Approach

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This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

## Response Action Status

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**Immediate Actions:** In 1983, the Saunders Supply Co. excavated some contaminated silt from the conical burn pit and transported it to a State-permitted landfill. The owner also installed a recovery well and pumped contaminated groundwater out of the well, recycling it back into the wood treatment system.



**Entire Site:** In mid-1991, EPA completed an intensive study of contamination at the site to identify the best cleanup strategies. EPA selected the final cleanup method in late 1991. The selected remedy includes dechlorination and off-site disposal of sediments from the wastewater pond and the former earthen separation pond; low temperature thermal desorption and on-site disposal of on-site soils and sediments from the storm sewer; treatment of groundwater during dewatering; stabilization, solidification, and off-site disposal of the top 1 inch of concrete pads and off-site disposal of the remaining pads; cleaning and sliplining of the storm sewer; groundwater monitoring; and deed use restrictions. The design phase for the remedy began in the fall of 1993. The design is expected to be completed in late 1995.

## Environmental Progress



By excavating contaminated silt, installing a recovery well, and pumping contaminated groundwater out of the well, the potentially responsible parties at the Saunders Supply Co. site have reduced the potential for exposure to contaminated resources while EPA is designing the remaining cleanup activities.

## Site Repository



Suffolk Public Library, 443 West Washington Street, Suffolk, VA 23434



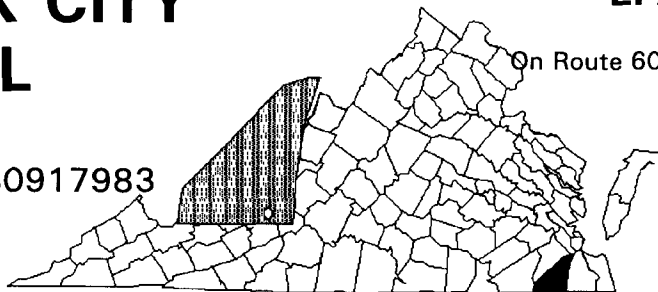
# SUFFOLK CITY LANDFILL VIRGINIA

EPA ID# VAD980917983

## EPA REGION 3

Suffolk County

On Route 604 within the City of Suffolk



## Site Description

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The 67-acre Suffolk City Landfill is owned and managed by the City. The landfill, now closed, operated from 1967 to 1984. The City covered, graded, and replanted the landfill in 1988. The unlined landfill accepted primarily municipal solid wastes. On-site disposal of highly toxic pesticides is the primary concern. Dixie Guano Company disposed of 27 tons of chemicals in a portion of the landfill in 1970. The area is rural and agricultural. Approximately 2,500 people obtain drinking water from private wells within 3 miles of the site. Surface runoff from the site discharges into two unnamed tributaries to the Great Dismal Swamp, a major freshwater wetland.

**Site Responsibility:** This site is being addressed through Federal, State, and municipal actions.

### NPL LISTING HISTORY

Proposed Date: 06/16/88

Final Date: 02/21/90

## Threats and Contaminants

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The groundwater, soil, and liquids in retention basins were contaminated with various pesticides from former disposal practices. Potential health hazards included accidentally ingesting or coming in direct contact with contaminated groundwater and soil. The potential existed for the contamination of the Great Dismal Swamp from the site runoff; however, contamination did not occur.

## Cleanup Approach

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This site is being addressed through an initial action; further investigations showed that no further actions are required.



## Response Action Status

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**Initial Action:** As part of the Administrative Order on Consent, the City of Suffolk installed a leachate collection and treatment system. Operations began in 1991.



**Entire Site:** Under orders from the State, the City of Suffolk agreed to conduct an intensive study of soil and groundwater contamination at the site to determine its nature and extent and to recommend strategies for its cleanup. The study, completed in 1992, showed that pesticide contamination no longer exists at the site. Scientific information on pesticides has shown that these substances are prone to degrading naturally over time. Therefore, no other actions are required at the sites; it is safe for people and the environment. EPA is initiating the process to delete this site from the National Priorities List.

**Site Facts:** The City of Suffolk signed an Administrative Order of Consent with the State that required the City to perform studies and any cleanup actions at the site.

## Environmental Progress



The installation of a leachate collection and treatment system has ensured that there are no threats to nearby residents or the surroundings at the Suffolk City Landfill site. Natural degradation of the remaining pesticides has occurred, ensuring the long-term safety of the site.

## Site Repository

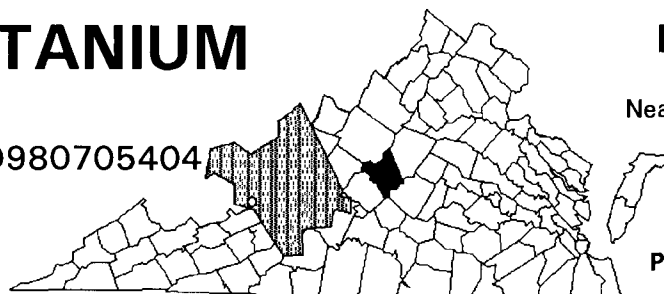


Suffolk Public Library, 443 West Washington Street, Suffolk, VA 23434



# U.S. TITANIUM VIRGINIA

EPA ID# VAD980705404



## EPA REGION 3

Nelson County  
Near the town of Piney River

Other Names:  
Piney River Disposal Site

## Site Description

The 50-acre U.S. Titanium site covers the northeastern portion of a parcel formerly occupied by an American Cyanamid Co. plant. Between 1931 and 1971, the company mined and refined titanium ore and manufactured titanium dioxide for paint pigments. A titanium processing plant, settling ponds, tailing ponds, lagoons, and a waste disposal area are located on site. Ferrous sulfate, a by-product of titanium dioxide manufacture, and heavy metals are the primary contaminants at the site. The site has been divided into seven separate contamination areas that require cleanup. Ferrous sulfate is highly acidic, and storm runoff from the site's waste piles contributed to six major fish kills in the Piney and Tye Rivers from 1977 to 1981. More than 200,000 fish died during these events. Although recent work has greatly improved conditions at the site, acidic runoff still threatens the Piney River. The closest residence is 1/4 mile from the site. Piney River, the town in which the site is located, has a population of approximately 100, and approximately 200 people live within a 1-mile radius of the site. Local residents use groundwater for their drinking water supply.

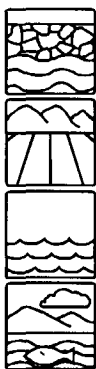
**Site Responsibility:** This site is being addressed through Federal, State, and potentially responsible parties' actions.

### NPL LISTING HISTORY

Proposed Date: 12/30/82

Final Date: 09/08/83

## Threats and Contaminants



The groundwater is highly acidic as a result of former plant operations. Aluminum, iron, copper, nickel, zinc, and cadmium from site soils have contaminated the groundwater. These contaminants are found in both on-site seeps and off-site surface water. Ingestion of or direct contact with contaminated groundwater poses only a slight threat, since no well contamination has been detected, and municipal wells are located upstream from the site. The acidity of the water and waste seeps could be harmful, as well as increase the solubility of metals, which could enter water. This stream has not supported a viable recreational fishery due mainly to the impact from titanium operation over the last 40 years. The fishery has improved since plant operations were stopped in 1971, but is still affected by discharges from the site.



## Cleanup Approach

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This site is being addressed in a single long-term remedial phase focusing on cleanup of the entire site.

## Response Action Status

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**Entire Site:** American Cyanamid Co. agreed in 1986 to begin an intensive study of site conditions and contamination. This work resulted in the selection of final remedies for the site in 1989. Seven areas have been pinpointed for treatment. A passive system will collect and treat iron-bearing acidic groundwater, which will be pumped to storage tanks for treatment. The ferrous-sulfate contaminated soil in Area 1 will be treated with lime, and used as cover soil or disposed of off site. Drainage controls and revegetation will be implemented in Areas 2, 3, 4, and 5. Area 6 requires no action. Acidified soil in Area 7 will be neutralized with lime. Other features include monitoring, road maintenance, and deed and access restrictions. These strategies are deemed completely effective for reducing acidic and iron discharges to acceptable standards. The engineering design for these remedies was completed in the summer of 1994. Cleanup activities began in the fall of 1994 and are scheduled for completion in 1997.

**Site Facts:** American Cyanamid Co. signed a Consent Agreement in April 1986, agreeing to conduct an investigation at the site.

## Environmental Progress



After adding this site to the NPL, the EPA performed preliminary investigations and determined that there were no immediate threats to nearby residents or the environment. The potential for exposure to hazardous materials at the U.S. Titanium site is low while cleanup activities are underway.

## Site Repository



Nelson County Memorial Library, Route 29, South Lovingson, VA 22949