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Environmental Protection
Agency

Solid Waste And
Emergency Response
(5201 G)

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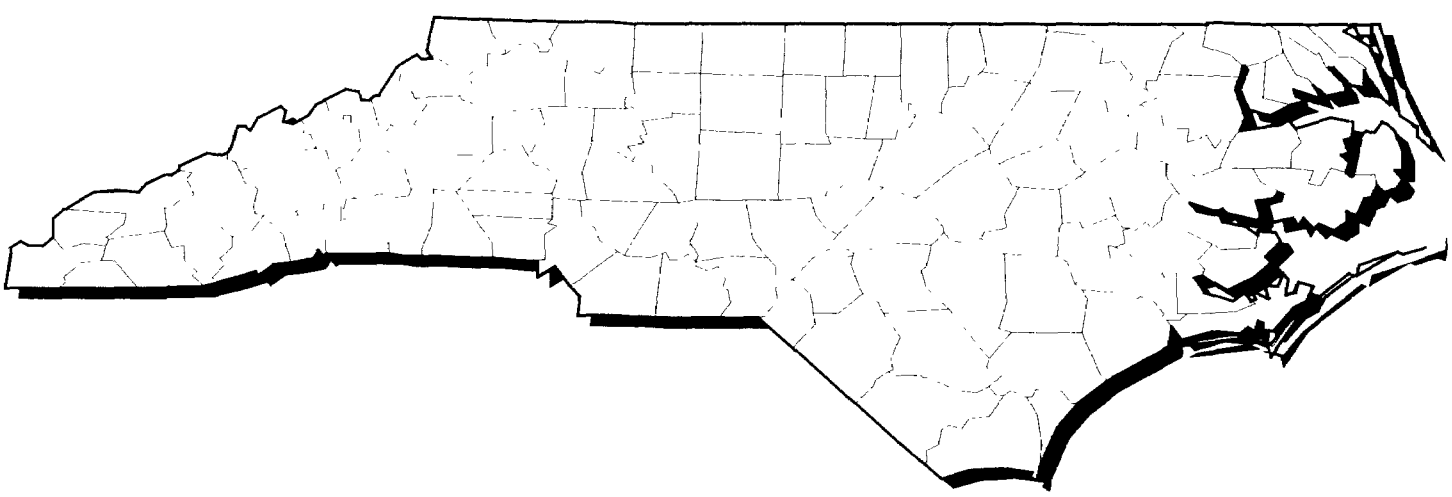
PB95-962935
9200.5-733C
May 1995

SUPERFUND: Progress at National Priority List Sites



NORTH CAROLINA 1995 UPDATE

Printed on Recycled Paper

How to Use the NPL Book

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.

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.

NPL LISTING HISTORY

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

SITE RESPONSIBILITY

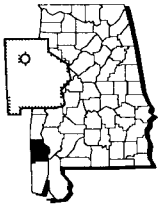
Identifies the Federal, State, and/or potentially responsible parties taking responsibility for cleanup actions at the site.

ENVIRONMENTAL PROGRESS

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

SITE NAME
STATE

EPA ID# ABC0000000



EPA REGION XX
COUNTY NAME
LOCATION

Other Names:

Site Description

A

Site Responsibility:

NPL Listing History
Proposed. XX/XX/XX
Final XX/XX/XX

Threats and Contaminants

B

Cleanup Approach

C

Response Action Status

D

Site Facts:

E

Environmental Progress

Site Repository

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.)

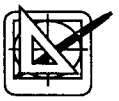
Threatened or contaminated *Environmentally Sensitive Areas* in the vicinity of the site. (Examples include wetlands and coastal areas or critical habitats.)

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.

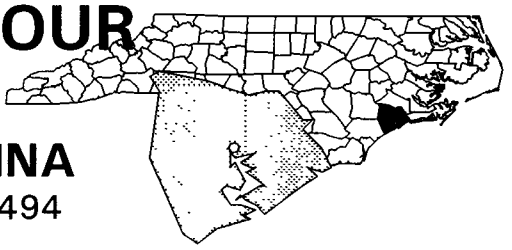
Cleanup Complete shows that all cleanup goals have been achieved for the contaminated site or part of the site.

EPA ID NUMBER	SITE NAME
NCD024644494	ABC ONE HOUR CLEANERS
NCD980843346	ABERDEEN PESTICIDE DUMPS
NCD981026479	BENFIELD INDUSTRIES, INC
NCD044440303	BYPASS 601 GROUND WATER CONTAMINATION
NC6170022580	CAMP LEJEUNE MILITARY RESERVATION
NCD003188828	CAPE FEAR WOOD PRESERVING
NCD003188844	CAROLINA TRANSFORMER CO.
NCD003446721	CELANESE CORP. (SHELBY FIBER OPERATIONS)
NCD980840409	CHARLES MACON LAGOON & DRUM STORAGE
NCD095459392	CHEMTRONICS, INC.
NC1170027261	CHERRY POINT MARINE CORPS AIR STATION
NCD095458527	F C X, INC (STATESVILLE PLANT)
NCD981475932	F C X, INC (WASHINGTON PLANT)
NCD981927502	GEIGY CHEMICAL CORP. (ABERDEEN PLANT)
NCD079044426	GENERAL ELECTRIC CO./SHEPERD FARM
NCD980729602	JADCO-HUGHES FACILITY
NCD122263825	JFD ELECTRONICS/CHANNEL MASTER
NCD003200383	KOPPERS CO. INC. (MORRISVILLE PLANT)
NCD001810365	MARTIN-MARIETTA, SODYECO, INC.
NCD991278953	NATIONAL STARCH & CHEMICAL CORP.
NCD980557656	NC STATE UNIVERSITY (LOT 86 FARM UNIT #1)
NCD981021157	NEW HANOVER COUNTY AIRPORT BURN PIT
NCD980602163	PCB SPILLS
NCD981023260	POTTER'S SEPTIC TANK SERVICE PITS

ABC ONE HOUR CLEANERS

NORTH CAROLINA

EPA ID# NCD024644494



EPA REGION 4

Onslow County
Jacksonville

Site Description

The 1-acre ABC One Hour Cleaners site has operated as a dry cleaning facility since 1954. The operation previously consisted of three buildings, but two of the buildings were joined to form one complex. Workers stored tetrachloroethylene (PCE), a dry-cleaning solvent, in a 250-gallon aboveground tank. The only hazardous wastes known to be generated at the site were from the recycling wastes still that was used to reclaim spent solvents. Until about 1985, wastes were buried on the site, although operators now send them to an EPA-approved hazardous waste facility. A septic tank/soil absorption system, consisting of an underground concrete tank and lid, has always been used to store wastewater. All these processes are housed in the rear building. In 1984, the nearby Camp Lejeune Marine Corps Base, also listed on the NPL in 1989, sampled 40 community drinking water supply wells. Analysts found organic compounds in three wells near two off-base dry cleaners. Investigations by the North Carolina Department of Natural Resources and Community Development narrowed the source of the contamination to ABC Cleaners. After inspecting the site, the State found that the stored solvent was entering the septic tank/soil absorption system and was polluting groundwater. This system since has been taken out of service. State analysts also identified PCE in a monitoring well at ABC Cleaners and in two community wells near the site. Approximately 41,000 people obtain drinking water from three public well systems within 3 miles of the site.

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

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 03/31/89

Threats and Contaminants

The groundwater is contaminated with volatile organic compounds (VOCs), mainly PCE. Nearby residents' health may be threatened if they drink or come in direct contact with contaminated groundwater.

Cleanup Approach

This site is being addressed in two long-term remedial phases focusing on cleanup of the contaminated groundwater and source control.

Response Action Status

Groundwater: In 1993, the EPA selected a remedy to cleanup the groundwater. The remedy includes pumping the contaminated groundwater using extraction wells and removing the contaminants with an air stripper. If necessary, an off-gas treatment will be used. This will be followed by surface water discharge of the treated groundwater. The cleanup will begin once the design phase is completed, currently scheduled for 1995.

Source Control: The EPA studied the nature and extent of soil contamination at the site and the alternative technologies available for cleanup. A remedy of soil vapor extraction was selected in September 1994. The design of the remedy is underway and scheduled for completion in late 1995.

Environmental Progress

The EPA has determined that the ABC One Hour Cleaners site is safe while designs of the cleanup activities are taking place.

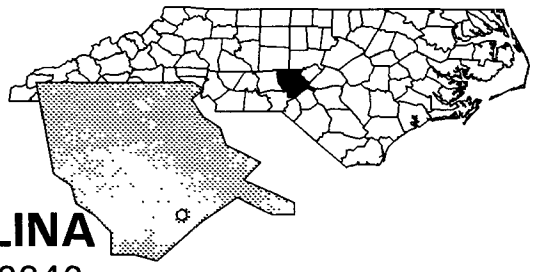
Site Repository

Onslow County Public Library, 58 Doris Avenue, East, Jacksonville, NC 28540

ABERDEEN PESTICIDE DUMPS

NORTH CAROLINA

EPA ID# NCD980843346



EPA REGION 4

Moore County
Aberdeen

Other Names:
Fairway Six Area
Twin Sites Area
McIver Dump Area
Route 211 Area
Farm Chemicals Area

Site Description

The Aberdeen Pesticide Dumps site is a cluster of five pesticide dumps ranging in size from ½ to 1½ acres located within 2 miles of one another. The five subsites are the Fairway Six Area, the Twin Sites Areas A and B, the McIver Dump, the Route 211 Area, and the Farm Chemicals Area; all but one are privately owned. The first area was discovered in 1984 during construction of a golf course (Fairway Six Area). The North Carolina Solid and Hazardous Waste Management Branch found several bags of pesticides and noted a strong chemical odor at the Fairway Six Area. State analysis revealed soil contamination caused by various pesticides. Soils at two other properties (Twin Sites Areas A and B) also were found to be contaminated with pesticides in 1984. One property is owned by the town of Aberdeen; the other, which is located 350 feet away, is privately owned. Both properties are 500 feet from the abandoned Farm Chemicals, Inc. plant, where a string of owners have blended or formulated pesticides since the 1930s. A citizen tip led the State to the McIver Dump in November 1984, where officials found 200 to 300 55-gallon pesticide drums in a leased rubble landfill (Area A). Further investigations at McIver Dump disclosed two additional areas (Areas B and C), where pesticides had been dumped. Under a State Order, Farm Chemicals, Inc. and the lessee of the property removed the drums from Area A in 1985. After the EPA began emergency cleanup at three of the dumps, the owner of another dump (Route 211 Area) reported site contamination to authorities. The State found a pile of cardboard containers, pesticide bags, powders, and tarry residues. The fifth dump is located on the site of the long-standing pesticide formulator (Farm Chemicals Area). Soils at all five areas contain pesticide residues and are permeable, facilitating movement of contaminants into the underlying groundwater. Nearby Page's Lake is threatened. Four of Aberdeen's 12 municipal wells are contaminated with the pesticide lindane. To date, four municipal wells have been shut down because contaminant levels were sufficiently elevated to present a health risk. Approximately 15 other off-site wells contained various forms of lindane. The surrounding area is rural. Approximately 3,500 people live within the municipal well service area. In addition, approximately 2,000 people are served by private wells in the area.

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

NPL LISTING HISTORY
Proposed Date: 01/22/87
Final Date: 03/31/89

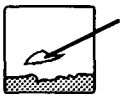
Threats and Contaminants

Fifteen off-site wells contained various pesticides, as did soil in many unlined trenches. On-site soils contain the pesticide DDT and its derivatives, toxaphene and benzenehexachloride (BHC) isomers. Surface water and sediments contain various levels of pesticides. People may be exposed to contaminants through direct contact with pure pesticide products in surface and subsurface soil. Other health risks include the ingestion of, or direct contact with, contaminated groundwater, surface water and sediments. Page's Lake is also threatened by site contamination.

Cleanup Approach

This site is being addressed in four stages: emergency actions and three remedial phases focusing on cleaning up of the soil, groundwater, and additional contamination at the McIver Dump and the Route 211 areas.

Emergency Response Action Status



Emergency Actions: In 1985, the EPA emergency workers removing surface contamination at the Fairway Six Area uncovered three large trenches of buried, concentrated pesticide wastes. Wastes, pure product, packing material, and contaminated soil (approximately 163 truckloads) were excavated and transported to an EPA-approved disposal facility. The EPA also removed wastes and contaminated soil from the Twin Sites Area and the McIver Dump Area B; workers shipped more than 450 truckloads to an EPA-approved facility for disposal. In 1985, under a State Order, two parties potentially responsible for contamination at the McIver Dump Area A steam-cleaned, triple-rinsed, and crushed nearly 700 drums and sent them to the Moore County landfill. Another EPA emergency action occurred in 1986 at the Route 211 Area. Five truckloads (100 tons) of pesticide-contaminated soil were shipped off site to an EPA-approved facility for disposal. After pesticides were detected in Aberdeen's drinking water in 1986, EPA emergency workers returned to discover four more trenches thought to contain about 12 million pounds of pesticide wastes at the Fairway Six Area. An on-site mobile incinerator conducted a test burn in which 12,000 pounds of contaminated soil and debris were incinerated. In 1988, EPA workers excavated, shredded, screened, and stockpiled about 22,000 cubic yards of pesticide-contaminated materials from the Fairway Six Area. In 1989, a third disposal area, Area C, was discovered at the McIver Dump Area. An emergency response action resulted in the excavation and stockpiling of approximately 3,200 cubic yards of pesticide contaminated soil. The contaminated stockpiles at the Fairway Six and McIver Dump Areas will be thermally treated through the cleanup efforts described below.

Soil: The EPA began an intensive study of contamination at the five dump areas in 1987. The EPA completed this initial study in mid-1991 and performed several supplemental studies in 1992. Based on the results of these studies, the EPA selected a soil cleanup remedy to address soil contamination in late 1991. The main features of the remedy include: excavating contaminated soil at the Farm Chemicals, Twin Sites, Fairway Six, McIver Dump, and Route 211 areas; using a thermal treatment process to clean the excavated soil and the contaminated soil stockpiled as a result of the emergency actions taken at the Fairway Six Disposal Area; replacing the treated soil on the site; and backfilling, grading, and revegetating the area with native grasses. Additionally, some or all of the buildings located in the Farm Chemicals area may be demolished to facilitate the soil exacavation. The EPA began the technical design for this cleanup remedy in the summer of 1993; testing of the thermal treatment process began in the fall of 1994. Final treatment of the soil is expected to begin in the fall of 1996.

Groundwater: As a result of site investigations, the EPA also discovered that groundwater beneath the Farm Chemicals, Twin Sites, and Fairway Six areas is contaminated. In late 1993, the EPA selected a cleanup remedy to extract contaminated groundwater and treat it using several treatment technologies. Removing this source of contamination will reduce the potential for further contamination of sediments, surface water, and the ecological system around the site. Design of the groundwater treatment system is underway and is expected to be completed by 1996. Treatment of the groundwater should begin shortly thereafter.

Additional Contamination at the McIver Dump and Route 211 Areas: In the spring of 1994, the EPA began an additional investigation into the nature and extent of groundwater, sediment, and surface water contamination at the McIver Dump and Route 211 areas. Completion of the investigation is projected for early 1996, at which time the EPA will select a remedy.

Site Facts: In March 1989, on behalf of the EPA, the Department of Justice filed a lawsuit seeking recovery of past and future response costs; litigation is pending. In March 1990, the EPA issued Unilateral Administrative Orders (UAOs) to four potentially responsible parties requiring them to conduct the cleanup activities at the Fairway Six dump area. In May 1993, the EPA issued UAOs to 21 potentially responsible parties requiring them to prepare the technical design and clean up the soil at all areas of the site. Responsible parties are complying with these Orders. In March 1994, the EPA and potentially responsible parties signed an Administrative Order on Consent to conduct an investigation and remedy feasibility study at the McIver Dump and Route 211 areas. In June 1994, the EPA issued UAOs to 22 potentially responsible parties requiring them to prepare the technical design and conduct groundwater cleanup activities at the Farm Chemicals, Twin Sites, and Fairway Six areas. Responsible parties are complying with these Orders.

Environmental Progress

The emergency removal of solid and liquid wastes and soil, as well as the incineration of 12,000 pounds of contaminated soils and debris have reduced the potential for exposure to hazardous materials at the Aberdeen Pesticide Dumps site while further cleanup activities are being planned.

Site Repository

Aberdeen Town Hall, 115 North Poplar Street, Aberdeen, NC 28315 - 919/944-1115

BENFIELD INDUSTRIES, INC.

NORTH CAROLINA

EPA ID# NCD981026479

EPA REGION 4
Haywood County
Hazelwood

Site Description

Benfield Industries, Inc. began mixing and packaging bulk chemicals on this 5-acre site in 1976. The company listed a wide range of organic and inorganic chemicals for sale. In 1982, a fire destroyed most of the plant; except for minor mixing operations and cleanup of debris from the fire, operations ceased. In 1986, the owner removed other debris and usable chemicals from the site in preparation to sell the land. The site lies in the flood plain of Richland Creek, next to Browning Branch. Local surface water is used for recreational activities. As of 1985, approximately 1,800 people used drinking water from private wells within a 3-mile radius of the site.

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

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 10/04/89

Threats and Contaminants

In 1985, the North Carolina Division of Health Services found high concentrations of polycyclic aromatic hydrocarbons (PAHs), produced from chemical packaging activities, in the soil on the western portion of the site and in other areas. If contaminants enter groundwater, people who drink such water may be threatened.

Cleanup Approach

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

Response Action Status

Entire Site: The EPA initiated an intensive study to evaluate site contamination in 1990. This investigation examined the nature and extent of pollution problems at the site and recommended the best strategy for final cleanup. As a part of the investigation, the site was surrounded by a six foot chain link fence. In mid-1992, the EPA selected a remedy for the site that specified the following actions: excavating contaminated soil down to the water table; washing the excavated soil; depositing the clean, coarse soil in the excavated area; biotreating contaminated materials generated during the soil washing process; and backfilling the clean material into the excavated areas. Groundwater will be treated using bidegradation technologies and nearby Browning Branch will receive additional monitoring. The EPA began the technical design for these cleanup actions in late 1992 and expects to begin construction in late 1995. Based on the data collected during the cleanup design, the following changes to the remedy are anticipated: on-site land-farming will be employed instead of using soil washing and slurry biotreatment for the contaminated soils, and the extracted contaminated groundwater will be discharged directly into the Waynesville Municipal Publicly Owned Treatment Works. The land-farming will require periodical tilling of the soils until the soils are deemed clean. Because the levels of contamination in the groundwater are low, the Waynesville Publicly Owned Treatment Works has verbally agreed to accept the extracted groundwater without pretreatment.

Environmental Progress

After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions, beyond fencing the site, were needed while cleanup activities are being planned.

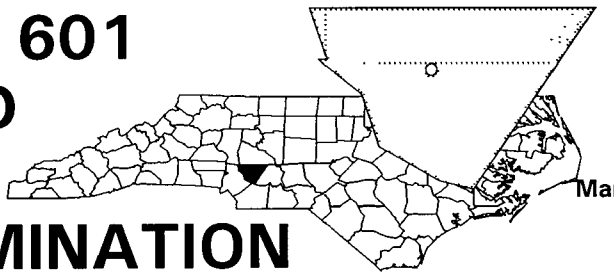
Site Repository

Hazelwood Town Hall, 101 West Georgia Avenue, Hazelwood, NC 28738

BYPASS 601 GROUND WATER CONTAMINATION

NORTH CAROLINA

EPA ID# NCD044440303



EPA REGION 4

Cabarrus County
Concord

Other Names:
Martin's Scrap Recycling, Inc.

Site Description

The ByPass 601 Ground Water Contamination site is an area in Concord where the groundwater is contaminated with lead from multiple sources. The best known source is the Martin Scrap Recycling (MSR) Facility, which occupies approximately 13 acres. Past practices included disposing of waste acid on site or selling it for reclamation and using spent battery casings for fill material on site. In 1982, the Department of Health Services for North Carolina notified the site owner that waste materials must be cleaned up or the facility must be closed. In response, the owner removed 2 to 6 inches of soil in the operations area and sold it for reclamation, along with process waste by-products. A permit for hazardous waste disposal was granted to the facility in 1983; groundwater contamination was discovered that same year. Ten other potential sources have been identified and are under investigation. Approximately 3,000 people live in this rural community. Private wells are near the site, and the closest home is within 500 feet.

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

NPL LISTING HISTORY
Proposed Date: 10/01/84
Final Date: 06/10/86

Threats and Contaminants

The groundwater, soil, and surface water are contaminated with heavy metals including lead and chromium. Human health could be threatened if people come in direct contact with or ingest contaminated soils, water, or groundwater. Public access to the main area of the site is restricted by a fence and difficult terrain.

Cleanup Approach

This site is being addressed in two stages: initial actions and two long-term remedial phases focusing on cleanup of the Martin Scrap Recycling area and of the additional sources of contamination.

Response Action Status

Initial Actions: Battery casing debris and lead-contaminated soil were removed from four disposal areas that were found to present an immediate risk to human health. Approximately 14,000 cubic yards of material were removed and stockpiled at the MSR facility.

Martin Scrap Recycling Area: The final remedy, chosen in 1993, was a measure to control the continued release of contaminants to the groundwater and surface water from the soils. This action will entail excavation, consolidation, and capping of contaminated soils. The design of the remedy is currently underway and is expected to be completed in 1996.

Additional Sources: In early 1993, the EPA selected a remedy that entailed solidification/stabilization and on-site disposal of contaminated soils, and pump and treat of contaminated groundwater. Design of the remedy is currently underway is expected to be completed in 1996.

Site Facts: A group of over 100 potentially responsible parties have signed a Consent Decree and agreed to conduct the design and implementation of the cleanup action.

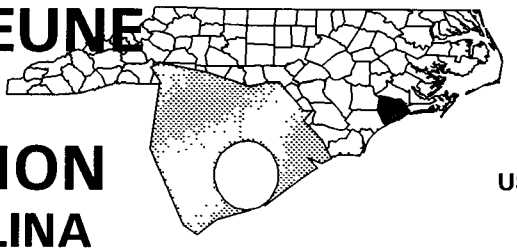
Environmental Progress

By removing battery casings, debris, and contaminated soil, the EPA made the ByPass 601 Ground Water Contamination site safer while additional cleanup activities are being designed.

Site Repository

Charles A. Cannon Memorial Library, 27 Union Street, North Concord, NC 28025

CAMP LEJEUNE MILITARY RESERVATION
NORTH CAROLINA
EPA ID# NC6170022580



EPA REGION 4
Onslow County
Jacksonville

Other Names:
USMC Camp LeJeune Marine Corps Base
USMC New River Marine Corps Air Station

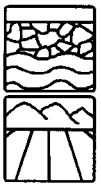
Site Description

Camp LeJeune Military Reservation, a U.S. Marine Corps Base established in 1941, covers 170 square miles in Onslow County. The complex has a number of facilities, including the Marine Corps Air Station New River, which adjoins the base. The main functions of the base are to provide housing, training, logistical, and administrative support for Fleet Marine Force Units. The Navy has identified 77 potential waste disposal areas in Camp LeJeune, many of which pose a potential threat to public health and the environment. The Navy has detected pesticides in the soil and various contaminants in the groundwater. Several on-base drinking water wells have been closed. Approximately 13,800 people obtain drinking water from wells within 3 miles of the contamination on the site, with the nearest well being 3,500 feet away from one of the areas of contamination. Groundwater is the sole source of drinking water for the base and the surrounding communities. Surface water from the base drains into the Atlantic Ocean via the New River. Both bodies of water are used for fishing and recreational activities.

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

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 10/04/89

Threats and Contaminants



The groundwater is contaminated with volatile organic compounds (VOCs), such as fuels and chlorinated solvents. Soils are contaminated with fly ash; solvents; paint stripping compounds; polycyclic aromatic hydrocarbons (PAHs); mercury; pesticides including DDT, DDE, and aldrin; and polychlorinated biphenyls (PCBs). Because the soil at the site is permeable, conditions are favorable for contaminants to move further into the groundwater. Although several drinking water wells on the base have been shut down, the contaminant plume may affect other wells. People who come into contact with or ingest the contaminated water and soil may be at risk.

Cleanup Approach

The site is being addressed in 13 long-term remedial phases focusing on cleanup of the shallow aquifer and 26 sub-sites.

Response Action Status

Shallow Aquifer: In June 1993, the EPA selected a pump and treat system as a remedy to address contamination of the shallow aquifer. Design of the remedy was completed in 1993. Cleanup activities are currently underway.

Sub-sites 21, 24, 78: The U.S. Marine Corps studied the nature and extent of contamination at Sub-sites 21, 24, and 78. Possible contaminants included pesticides, PCBs, fly ash, solvents, paint stripping compounds, and VOCs such as perchlorethylene (PCE). The remedy selected in September 1994 includes treating shallow groundwater and excavating PCB- and pesticide-contaminated soil. Design of the remedy began in 1994 and is expected to be completed in late 1995.

Sub-sites 6, 9, and 82: The sources of contamination include pesticides, PCBs, and solvents at Sub-site 6 and oil, solvents, and contaminated fuels at the fire training pit on Sub-site 9. A remedy was selected in September 1993 that includes treating groundwater contaminated with organics and inorganics, treating VOC-contaminated soils, and excavating and disposing of PCB- and pesticide-contaminated soils. Design activities are underway and cleanup actions are scheduled to begin in 1995.

Sub-site 48: Field work exploring the nature and extent of mercury contamination at this sub-site was completed in 1993. In September 1993, the EPA decided that no further action was needed, as contaminant levels are within health-based standards.

Sub-sites 41, 69, 74: These areas are landfills that previously accepted a wide range of miscellaneous waste, from household garbage to chemical agent test kits. The investigation to explore the nature and extent of contamination was initiated in late 1993 and is scheduled for completion in 1995.

Sub-site 2: In 1994, a time-critical removal action was completed. Pesticide-contaminated soils and concrete were excavated and removed for off-site treatment. Following this action, an investigation of the nature and extent of contamination at this sub-site was completed. A remedy was selected in the fall of 1994, and includes cleansing of the groundwater through natural attenuation and with groundwater monitoring. The removal of the sources of contamination will ensure that the groundwater is not further polluted.

Sub-sites 36, 43, 44, 54, and 86: An investigation into the nature and extent of contamination at these sub-sites is being planned and is expected to begin in early 1995.

Sub-sites 1, 28, and 30: The investigation to determine the nature and extent of contamination at these sub-sites began in early 1994 and is scheduled for completion in the fall of 1995.

Sub-site 16: The investigation into the nature and extent of contamination at sub-site 16 began in 1991. The ecological portion of the investigation was completed in mid-1994, with the remaining portions of the investigation scheduled for completion in late 1995.

Sub-sites 65 and 73: The investigation into the nature and extent of contamination at sub-sites 65 and 73 began in 1992 and is expected to be completed in 1996.

Sub-site 35: This sub-site is a 2,500-square-foot tank farm. The tanks were used to store various chemicals used in the Camp Geiger Area. The investigation of contamination began in 1994. An interim remedy of soil removal was selected in September 1994, to address contaminated soils. The design of the interim remedy was completed in late 1994. Cleanup is scheduled to begin in May 1995. A second interim remedy for shallow groundwater was selected in mid-1995. A final remedy to address the remaining areas of concern is planned for 1996.

Sub-site 7 and 80: These sub-sites comprise 5 acres and 1 acre, respectively, and are suspected disposal areas that contain PCBs and pesticides. The investigation into the nature and extent of contamination began in early 1994. The ecological portion of the investigation was conducted in 1994. The remaining portions of the investigation are scheduled for completion in late 1995.

Sub-site 3: This sub-site consist of the old creosote plant. Elevated levels of PAHs were detected in soil samples collected during a site inspection. The sub-site investigation was initiated in the fall of 1994.

Site Facts: Camp LeJeune 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.

Environmental Progress

Presently, the DOD is monitoring drinking water supplies and closing wells when contaminant levels exceed health standards. This practice has reduced risks from contamination at the Camp LeJeune Military Reservation site while studies leading to final cleanup remedy selection are being conducted by the U.S. Marine Corps and cleanup measures are being designed and implemented.

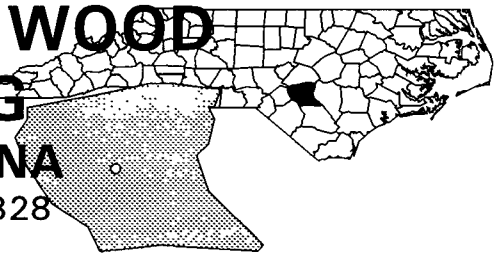
Site Repository

Onslow County Library, 58 Dorris Avenue, East, Jacksonville, NC 28540

CAPE FEAR WOOD PRESERVING

NORTH CAROLINA

EPA ID# NCD003188828



EPA REGION 4

Cumberland County
Fayetteville

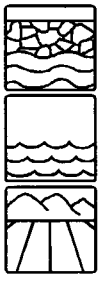
Site Description

The 41-acre Cape Fear Wood Preserving site contains a 10-acre wood preserving facility. From 1953 until 1983, wood was treated, using both the creosote and the chromated-copper-arsenate (CCA) process. Process wastes were deposited in an unlined treatment lagoon and a surface impoundment. Wastes also were allowed to discharge from a sump into a drainage ditch. Contaminants have been found in the soil, groundwater, a drainage ditch, and a diked pond on the site. Buildings contain asbestos, and CCA crystals were spilled under the process building. The site is vacant, and access is unrestricted. Approximately 1,000 people live within 1/4 mile of the site. About 16,000 people living within 3 miles of the site depend on public wells as a source of drinking water. Land across the road from the site is used for agricultural purposes, and an unnamed creek is nearby.

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

NPL LISTING HISTORY
Proposed Date: 06/10/86
Final Date: 07/22/87

Threats and Contaminants



The groundwater is contaminated with heavy metals including arsenic and chromium, as well as benzene and polycyclic aromatic hydrocarbons (PAHs). The sediments from the pond and surface water from the drainage ditch also are contaminated with PAHs. The soil is contaminated with PAHs and arsenic. People who accidentally come in direct contact with or ingest contaminated soil, sediments, groundwater, or surface water may be exposed to hazardous materials.

Cleanup Approach

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

Response Action Status

Initial Actions: In 1985, the EPA pumped water out of the pond and added fly ash to solidify the sludge. The mixture was removed down to the water table, which was about 7 feet below the surface. The pond then was filled in with soil from the site. A portion of sediment from an unnamed creek also was removed. In addition, sludge was removed from a septic tank. Soils from an unlined lagoon used for disposing CCA-related waste also were removed, backfilled, and regraded. In 1986, the EPA removed creosote from a tank, solidified the creosote with fly ash, and stored these residues on site under a covered shed. In 1987, the EPA repaired pipes from the tanks, pumped liquids from the pond into on-site tanks, and backfilled the pit. In 1988, the owner dug up the drainage ditch, installed several new drainage ditches, and removed the dike.

Entire Site: In 1989, the EPA selected a remedy for the site that includes: excavating the soil; washing the soil to reduce the volume of contaminated soils; treating contaminated soils by bioremediation to remove the organic contamination; solidifying soils as necessary to contain inorganic compounds and placing the cleaned soils back into the excavated area; and extracting the groundwater for treatment. The technical specifications and design for the selected cleanup were completed by the Agency in late 1991. Cleanup activities at the site are expected to begin in the summer of 1995.

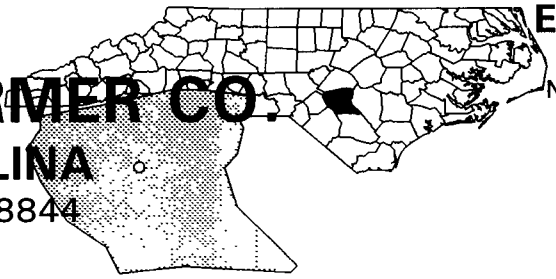
Environmental Progress

Initial actions, including pumping and treating contaminated pond water, removing contaminated sediments from a creek, and repairing pipes and drainage ditches, have made the Cape Fear Wood Preserving site safe while final cleanup activities are being completed.

Site Repository

Cumberland County Public Library, 300 Maiden Lane, Fayetteville, NC 28301

CAROLINA TRANSFORMER CO.
NORTH CAROLINA
EPA ID# NCD003188844



EPA REGION 4
Cumberland County
Near East Fayetteville

Site Description

The Carolina Transformer Co. site is located on an approximately 5-acre parcel of land in a rural area near East Fayetteville. The site formerly was used as an electrical transformer recycling facility. In response to citizen concerns in 1978, the EPA conducted sampling which revealed contamination of the soil and a shallow residential drinking water well near the site, and trace contamination in Carolina Transformer's deep industrial well. The house with the contaminated shallow well was connected to the public water system in 1979. In 1989, the North Carolina Environmental Services Division inspected the abandoned site and found 98 capacitors, 18 of which were ruptured and leaking onto the soil. The nearest residence is located approximately 250 feet from the site. An estimated 3,000 people reside within a 3-mile radius of the site. A food processing facility also is located next to the site.

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

NPL LISTING HISTORY
Proposed Date: 01/22/87
Final Date: 07/22/87

Threats and Contaminants

Private wells near the site contain volatile organic compounds (VOCs); polychlorinated biphenyls (PCBs)-carrier compounds from the former transformer recycling operations were found in a shallow residential drinking water well about 250 feet west of the site. Soil on the site and nearby surface waters are contaminated with PCBs and PCB-carrier compounds (chlorobenzenes). Removing contaminated soils and filling in the excavated areas with clean fill have reduced potential risks on site, but exposure to off-site contaminated soils, sediments, and surface waters still may exist. Potential risks exist to individuals who come into direct contact with or accidentally ingest contaminated surface water, groundwater, soils, or sediments; inhale contaminated dusts; or consume agricultural crops that contain bioaccumulated contaminants.

Cleanup Approach

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

Response Action Status

Immediate Actions: In 1984, the EPA removed 975 tons of contaminated soil, transported it to a federally approved facility, and then fenced the area. Residences with contaminated groundwater were connected to the public water supply. In early 1990, the EPA removed 98 leaking capacitors that had been disposed of at the site after the 1984 removal activities were completed.

Entire Site: The EPA completed an investigation into the nature and extent of contamination at the site in mid-1991. The final cleanup remedy includes: solvent extraction from the contaminated soil; extraction and treatment of groundwater; demolition of the roof and walls of the building remaining on site; and disposal of residual solid waste and debris. The design of the selected remedy is being addressed in two different parts: soil and groundwater. The design of the soil remedy is expected to be completed in 1995. The groundwater pump and treat system will be installed after the soil have been cleaned up.

Site Facts: The EPA has sued Carolina Transformer Co. for recovery of costs and treble damages for not complying with an Administrative Order to clean up the site.

Environmental Progress

The removal of contaminated soils and capacitors from the site, the provision of a safe drinking water source, and the construction of a fence have reduced the potential for exposure to hazardous materials at the Carolina Transformer Co. site while the technical design phase of the final cleanup remedies is underway.

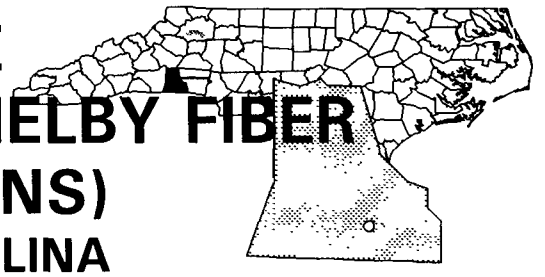
Site Repository

Cumberland County Public Library, 300 Maiden Lane, Fayetteville, NC 283012

CELANESE CORP. (SHELBY FIBER OPERATIONS)

NORTH CAROLINA

EPA ID# NCD003446721



EPA REGION 4

Cleveland County
Shelby

Other Names:
Fiber Industries, Inc.
Shelby Fiber Operations

Site Description

The Celanese site is a 450-acre property that consists of a polyester raw material production facility, a manufacturing area, a wastewater treatment area, a former waste disposal area, and a recreational and tree farming area. Operations at the site began in 1960 by Fibers Industries, Inc., a manufacturer of polyester polymer chips and filament yarn. Chemical wastes were disposed of directly into a drainage ditch during the early years of operation, prior to completion of the wastewater treatment plant. Treated effluent has been discharged to Buffalo Creek since the mid-1960s, when the treatment plant was completed. In addition, there are several areas that have been used for waste storage and disposal, including a buried waste area and a drum storage area. Oils and solvents were burned in a small open area during the 1960s. When the storage of waste chemicals and solvents ceased in the mid-1970s, drums were removed and properly disposed of. Monitoring wells on the site are contaminated with organic chemicals. Approximately 500 people live within 1 mile of the site. The closest well is about 1,500 feet away, and 47 wells are within ¼ mile of the site. Buffalo Creek is 3,500 feet away and is the source of the plant's drinking water. Land within ½ mile is used for forestry and agricultural activities.

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

Groundwater, soils, and sediments are contaminated with volatile organic compounds (VOCs) including benzene and trichloroethene, semi-volatiles including ethylene glycol, and heavy metals including chromium and arsenic. Surface water and sediments are contaminated with chromium and phthalates. If nearby residents drink contaminated groundwater from private wells, they may be at risk. People who trespass on the site and come into direct contact with or accidentally ingest surface water, soil, or sediments may be at risk.

Cleanup Approach

Response Action Status

Groundwater: In 1988, the EPA selected a remedy to clean up the groundwater that includes pumping the groundwater and removing contaminants with an air stripper. In addition, the groundwater is being treated with microorganisms. It also is being treated by forcing the groundwater through tanks containing activated carbon, followed by discharge to the on-site wastewater treatment plant. Construction of the pump and treat system was completed in 1993. Operation and maintenance of the system are in progress, and are projected to continue for up to 20 years to meet established cleanup standards.

Source Control: In 1989, a remedy was selected by the EPA to clean up the source of contamination. The remedy includes: excavating the contaminated soils, sludges, and stream sediments, and incinerating them on site; mixing the incinerator ash and sediments with lime or cements, and backfilling the excavated areas with the solidified material; and monitoring the site for any additional contamination. This cleanup action was completed in 1993.

Environmental Progress

Construction of all cleanup remedies have been completed. The source of contamination has been cleaned up, and the groundwater treatment system is successfully treating groundwater and controlling off-site migration.

Site Repository

Cleveland County Library System, 104 Howie Drive, Shelby, NC 28151

CHARLES MACON LAGOON & DRUM STORAGE

NORTH CAROLINA

EPA ID# NCD980840409

EPA REGION 4

Richmond County

1 ½ miles southwest of Cordova

Other Names:

Macon Site 1 Mile South of Cordova

Dockery Property

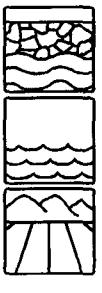
Site Description

The Charles Macon Lagoon & Drum Storage site is an abandoned, 16-acre hazardous waste storage facility. According to a 1980 inspection by the State of North Carolina, there were 11 lagoons on the site containing waste oil and sludges and 2,175 drums containing various chemicals. Eight of these lagoons were unlined and overflowing. Operations at the site ceased in 1981. In 1982, the State ordered the owner's estate to clean up the site. The estate removed 300 drums and installed two on-site monitoring wells. In 1985, the EPA detected chemicals in monitoring wells downgradient of the site. Approximately 1,100 people draw drinking water from private wells within 3 miles of the site, most of which are upgradient of the contamination. There are four residences located within 100 yards of the facility. The Pee Dee River is located 1 mile away, and two ponds, two streams, and a swamp are located between the river and 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: 07/22/87

Threats and Contaminants



Groundwater downstream from the site is contaminated with trichloroethylene (TCE) and heavy metals including barium and chromium. Sediments from the pond are contaminated with toluene. Soil in on-site lagoons is contaminated with volatile organic compounds (VOCs) and other organic chemicals. Sludge is contaminated with heavy metals and creosote. People who accidentally come in direct contact with or ingest contaminated groundwater, sediments, sludge, or soil may be at risk.

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

Immediate Actions: In 1983, the EPA removed all of the remaining drums from the site, and excavated and filled in 10 lagoons. The remaining lagoon contains solidified waste sludge, crushed empty drums, and contaminated soil, and is covered with 3 feet of clay.

Entire site: After completing an investigation into the nature and extent of contamination at the site, the EPA selected a cleanup remedy. The remedy includes using a soil vapor extraction system to clean a lagoon contaminated with VOCs, excavating another lagoon and removing its contents for off-site disposal, and pumping and treating contaminated groundwater through the use of an air stripping system and extraction wells. Over the summer of 1994, parties potentially responsible for site contamination removed the remaining lagoon wastes, including vats, tanks, and drums, and disposed of them off site. The engineering designs for the soil and groundwater treatment systems are underway and are expected to be completed in mid-1995. Both systems are expected to be operational by 1996.

Site Facts: In 1982, the State issued an order to the owner to clean up the site. In 1987, the EPA filed an action against several parties potentially responsible for contamination at the site. In 1989, the parties signed a Consent Decree to pay for past costs. In 1992, EPA issued a Unilateral Administrative Order to the potentially responsible parties compelling them to design and implement the cleanup remedy.

Environmental Progress

Removing the 55-gallon drums, filling in lagoons, and removing waste from another lagoon have reduced the potential for exposure to hazardous materials at the Charles Macon Lagoon and Drum Storage site while the EPA designs the soil and groundwater treatment systems.

Site Repository

Thomas H. Leath Memorial Library, 412 East Franklin Street, Rockingham, NC 28379

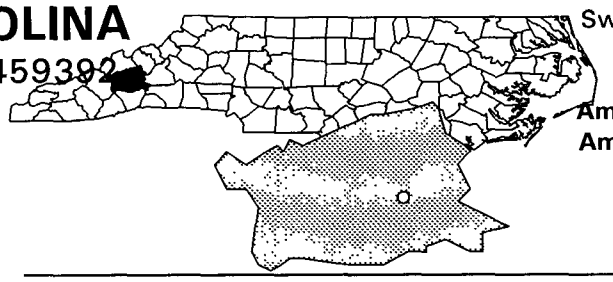
CHEMTRONICS, INC.

NORTH CAROLINA

EPA ID# NCD095459392

EPA REGION 4

Buncombe County
Swannanoa Township



Other Names:
Amcel Production, Inc.
Amcel Propulsion, Inc.

Site Description

Disposal activities at the Chemtronics, Inc. site involve 10 acres of a 1,027-acre parcel of land. The active industrial plant has had several owners/operators since it was first developed in 1952. A variety of products were manufactured at the site, including explosives, rocket fuel, and pharmaceuticals. By-products of these manufacturing activities were deposited in 23 areas on site and three areas off site. Two areas were particularly involved: one area consisted of eight abandoned acid and organic waste pits; the other contained two lined basins used for the neutralization and equalization of waste before it was discharged into local wastewater facilities. Solid wastes and solvents were burned on site before 1971. From 1971 to 1975, liquid waste was disposed of in on-site pits and trenches, while solid and explosive wastes were burned. Acid and organic wastes also were disposed of in pits and trenches starting in 1975. In 1979, the disposal pits were closed. Two monitoring wells near the pits were found to be contaminated. There are several residences within several hundred feet of the off-site disposal areas. The site is adjacent to Bee Tree Creek, and the Pisgah National Forest is to the north of the site. One of the reported waste disposal areas, a municipal landfill, has been proposed for development as a mobile home park.

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

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

Threats and Contaminants

Groundwater and soils are contaminated with volatile organic compounds (VOCs), explosives such as TNT, heavy metals including chromium, and benzylic acid. Surface water is contaminated with VOCs, explosives, and bromoform. People who come in direct contact with or accidentally ingest contaminated groundwater, surface water, or soil may be at risk.

Cleanup Approach

Response Action Status

Immediate Actions: In 1985, the EPA removed two drums of hazardous materials and disposed of them in a federally-approved facility.

Entire Site: The remedy selected by the EPA to clean up the site includes: covering the waste disposal areas with a cap, which includes a high-density polyethylene membrane, clean soil, and planting vegetation; installing a gas collection and ventilation system, if necessary; pumping and treating groundwater by using air stripping, carbon adsorption, or bioremediation and sedimentation; sampling the pond water and sediments and, if necessary, cleanup; and sediment, groundwater, and surface water monitoring. Treated groundwater will be discharged to a local treatment facility. The parties potentially responsible for the site contamination prepared the technical specifications for cleaning up the site, which were approved by the EPA in 1991. Cleanup construction activities were completed in early 1993. In mid-1994, the groundwater extraction and treatment systems had been operating for more than 18 months when the EPA completed its review of the first year monitoring results. Based on the review of this report and the number of system shut downs over the previous year, both the EPA and the State of North Carolina agreed that it is premature to term the Chemtronics cleanup action as fully operational and functional. The potentially responsible parties have continued to monitor the extraction and treatment systems quarterly. The next evaluation report should be submitted to the EPA by spring 1995. It is anticipated that the groundwater extraction and treatment action will be ongoing for over 30 years.

Site Facts: The EPA and two of the potentially responsible parties signed an Administrative Order on Consent on September 30, 1985 to perform a study of the nature and extent of contamination on the site. The EPA issued an order on March 22, 1989 to all three of the potentially responsible parties (Celanese, Chemtronics, and Northrop) to conduct the engineering design and actual cleanup for the site. Each potentially responsible party is in compliance with the Administrative Order.

Environmental Progress

All construction at the site is complete. By removing the drums of hazardous materials, the EPA eliminated the immediate threats posed by the Chemtronics, Inc. site while cleanup activities are underway.

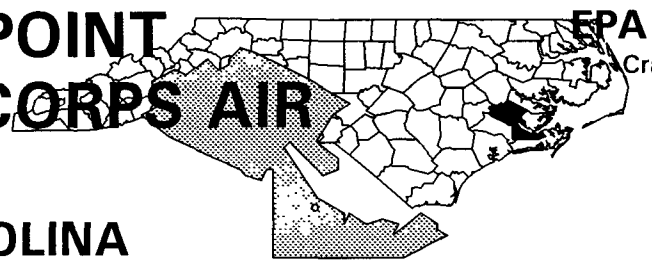
Site Repository

Martha Ellison Library, Warren Wilson College, 701 Warren Wilson Road, Swannanoa, NC 28778

CHERRY POINT MARINE CORPS AIR STATION

NORTH CAROLINA

EPA ID# NC1170027261



EPA REGION 4
Craven County
Havelock

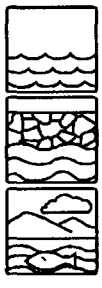
Site Description

The Cherry Point Marine Corps Air Station site encompasses 11,485 acres and is located on a peninsula between the Neuse River to the north and the Core and Bogue Sounds to the south. The air station was commissioned in 1942. A massive aircraft assembly and repair facility, which later became the Naval Aviation Depot (NADEP), was added in 1943. Hazardous wastes generated by the air station include plating wastes containing heavy metals and cyanide, organic solvents, paint removers and cleaners, waste petroleum, oil and lubricants, and polychlorinated biphenyls (PCBs). Prior to 1982, the Marine Corps disposed of most hazardous wastes on site. Currently, hazardous wastes are placed in drums and sent off site to a hazardous waste storage facility. Other hazardous and non-hazardous wastes are piped to the industrial wastewater treatment plant at the air station and discharged to Slocum Creek under a National Pollutant Discharge Elimination System (NPDES) permit. Several aquifers, including the Yorktown and Castle Hayne, underlie the site. The air station draws water from the Castle Hayne aquifer via 24 on-site wells. Sampling by the U.S. Geological Survey in 1986 revealed elevated concentrations of benzene, arsenic, lead, and nickel in air station drinking water wells. Surface water runoff from contaminated areas migrates to Slocum Creek or its small tributaries, all of which drain into the Neuse River estuary. The Neuse River is a recreational and commercial fishery.

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

NPL LISTING HISTORY
Proposed Date: 08/23/94

Threats and Contaminants



Samples collected from Slocum Creek in 1987 and 1990 have revealed PCB and arsenic contamination in sediments. The groundwater is contaminated with benzene and the heavy metals arsenic, lead, and nickel. Slocum Creek is a recreational fishery and a state-designated inland primary nursery area. Touching or ingesting contaminated surface water or groundwater could have adverse health effects.

Cleanup Approach

This site will be addressed through a long-term remedial phase focusing on cleaning up the entire site.

Response Action Status

Entire Site: The EPA is planning site-wide investigations into the nature and extent of contamination at the Cherry Point Marine Corps Air Station site. Upon completion of these studies, final cleanup remedies will be selected.

Environmental Progress

The EPA has determined that the site poses no immediate threat to human health or the environment while it plans site-wide investigations.

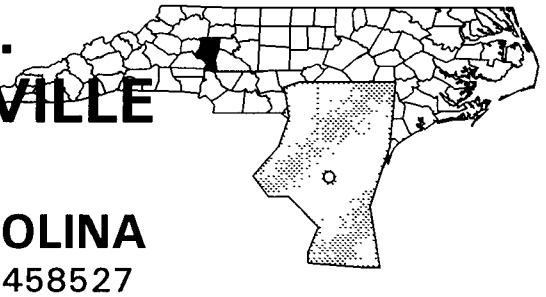
Site Repository

Not yet established.

FCX, INC. (STATESVILLE PLANT)

NORTH CAROLINA

EPA ID# NCD095458527



EPA REGION 4
Iredell County
Statesville

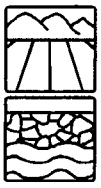
Site Description

From 1940 through 1986, FCX, Inc. (Statesville Plant) blended, repackaged, and distributed agricultural chemicals at this 5-acre site. Liquid and powdered pesticides were repackaged at the site until 1969. Reportedly, between 5,000 and 10,000 pounds of pesticides were buried under a concrete warehouse floor some time before 1969. Also, spills occurred in areas where pesticides were handled. Soil and groundwater collected at the site have revealed contamination since 1988. Private and public wells within 3 miles of the site provide drinking water to an estimated 12,000 people. The site is bordered on the north by an active Burlington Industries Mill and on the west by property formerly operated by the Carnation Milk Company.

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

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 02/16/90

Threats and Contaminants



The soil is contaminated with pesticides such as chlordane and DDT, as well as coal tar distillates and volatile organic compounds (VOCs). The groundwater contains pesticides including lindane, chlordane, and DDT, and halogenated organic solvents and VOCs. Human health may be threatened through direct contact with, or accidental ingestion of contaminated soil or groundwater.

Cleanup Approach

The site is being addressed in four stages: immediate actions and three long-term cleanup phases focusing on cleanup of the organics groundwater, soil, and Burlington groundwater.

Response Action Status

Immediate Actions: In 1989, the EPA installed four new monitoring wells on site and fenced the site. Results of sampling showed groundwater contamination. Soil sampling outside and under the warehouse detected low levels of pesticides, but suspected buried pesticides were not found.

Organics Groundwater: In the fall of 1993, the EPA completed an investigation of VOC- and pesticide-contaminated soil and found that contaminants were migrating to private drinking water wells located just south of the property. The remedy selected in 1993 to address this contamination is a groundwater pump and treat system. Design of the remedy is expected to be completed in 1995.

Soil: The EPA completed an investigation into the nature and extent of soil contamination at the site in the fall of 1994, at which time a remedy was selected. The remedy includes: demolishing existing buildings on the property; excavating approximately 7,000 cubic yards of soil, and treating it on site; and, using Base Catalyzed Decomposition (BCD), a type of thermal desorption, to clean the remaining soil on site.

Burlington Groundwater: The contamination of the groundwater was identified as coming from another property. The potentially responsible parties are conducting an investigation into the nature and extent of the Burlington groundwater contamination. The study is scheduled to be completed in 1995.

Site Facts: The company filed for bankruptcy in September of 1985 and began liquidating its assets.

Environmental Progress

Fencing the site has eliminated direct contact threats while further investigations are underway and cleanup remedies are being designed.

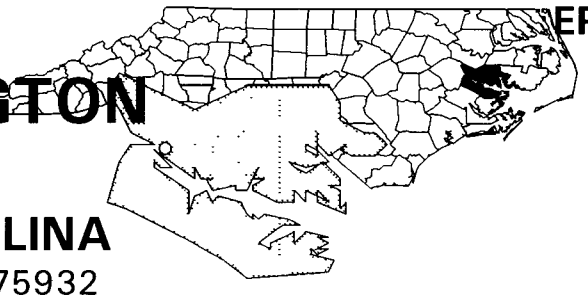
Site Repository

Iredell County Library, 135 East Water Street, Statesville, North Carolina 28677
704/878-3090

FCX, INC. (WASHINGTON PLANT)

NORTH CAROLINA

EPA ID# NCD981475932



EPA REGION 4

Beaufort County
Washington

Other Names:
Washington Plant

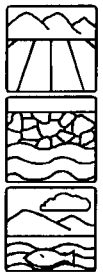
Site Description

FCX, Inc. (Washington Plant) began repackaging and selling agricultural chemicals in 1945 on this 6-acre site. During these operations, a large trench was filled with pesticide wastes and other agricultural chemicals in the early 1970s. The company filed for bankruptcy and began liquidating its assets in 1985. The chemicals from the trench may move into shallow groundwater connected to the underlying aquifer. This deeper aquifer is the major source of drinking water in the area. Approximately 2,850 people draw drinking water from wells within 3 miles of the site. The area is mainly agricultural. The site is bordered by a railroad and a wetland.

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

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 03/31/89

Threats and Contaminants



The soil of the disposal trench contains pesticides, such as DDT and chlordane, as well as mercury. Direct contact with the contaminated soil is a potential threat to public health, but is unlikely since the area is fenced. VOC and pesticide contamination has spread from soils into the deeper aquifer. Individuals who may ingest contaminants in drinking water are at risk. The site is bordered by a wetland.

Cleanup Approach

This 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

Initial Actions: In 1988, the EPA began to excavate the contaminated soil and analyze it on site. The site also was fenced. The EPA stored and covered all contaminated soil on site and then backfilled the excavated area with clean soil. In early 1992, an additional 2,000 yards of contaminated soil were excavated and thermally treated.

Entire Site: In 1993, FCX, Inc. completed a study into the extent and nature of contamination at the trench and main warehouse and identified alternative technologies for cleanup. The selected remedy includes a pump and treat system to address VOC- and pesticide-contaminated groundwater. The workplan for the design of the groundwater treatment has been prepared and is expected to be approved in 1995. Since the initial removal actions have addressed the contaminated soil no further soil cleanup is expected.

Site Facts: The EPA filed an Administrative Order to compel FCX, Inc. and Fred Webb, Inc. to remove pesticides from the trench area.

Environmental Progress

The initial actions, including excavating and storing contaminated soil and fencing the site, have made the FCX, Inc. (Washington Plant) site safer groundwater cleanup activities are being designed.

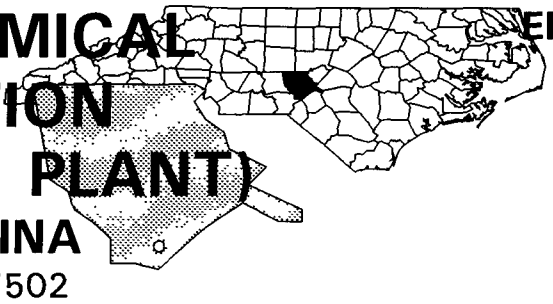
Site Repository

George and Laura Brown Library, 122 Van Norden Street, Washington, North Carolina 27889

GEIGY CHEMICAL CORPORATION (ABERDEEN PLANT)

NORTH CAROLINA

EPA ID# NCD981927502



EPA REGION 4
Moore County
Aberdeen

Site Description

The Geigy Chemical Corporation (Aberdeen Plant) site covers 1 acre and has been occupied by various chemical companies since 1947. From 1949 to 1955, Geigy produced solid and liquid pesticides on the site. The facility includes four aboveground storage tanks, an office building, and two warehouses. In 1985, the State detected pesticides in private and municipal wells. In 1987, the EPA detected pesticides in the surface and subsurface soils on the site. The aboveground storage tanks were removed in 1989, and two warehouses were removed in 1991. The Aberdeen Public Water Supply System and numerous private wells within 3 miles of the site serve approximately 7,400 people. The Sandhill Aquifer underneath the site supplies all the drinking water for Moore County. Drainage from the site collects in several unnamed tributaries of Aberdeen Creek. The creek is used for recreational activities.

Site Responsibility: The site is being addressed through a combination of Federal and potentially responsible parties' action.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 10/04/89

Threats and Contaminants

The groundwater is contaminated with lindane and toxaphene. The soil and surface water are contaminated with pesticides including toxaphene, DDT, and lindane. Trespassers on this site who come in direct contact with or accidentally ingest contaminated groundwater and soil may be at risk. Individuals frequenting Aberdeen may be exposed to contaminants through direct contact with surface water.

Cleanup Approach

This 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

Initial Actions: In 1989, the parties potentially responsible for the site contamination removed approximately 690 tons of pesticide-contaminated soil and debris to an approved facility. A second action was conducted in 1991, involving the removal of 2,000 tons of pesticide-contaminated soil to an approved facility for disposal. Six 30-gallon drums containing concentrated surface debris were sent to an approved incinerator facility for thermal treatment. Two deteriorating warehouses were also removed. The site has been fenced.

Entire Site: The remedy to address site contamination was selected in mid-1992. The potentially responsible parties will excavate and analyze additional contaminated soil from the site. Soil with unsafe levels of pesticides will be incinerated off site and the rest will be placed in an EPA-approved, off-site landfill. The responsible parties also will install a system to pump and treat contaminated groundwater. The design of the remedy is being prepared and scheduled to be completed in 1995.

Site Facts: In 1988, the EPA and Ciba-Geigy Corp., Olin Corp., and Kaiser Aluminum and Chemical Corp. signed an Administrative Order. This agreement specified how these parties would conduct the study into the type and extent of contamination at the site. In 1993, a Consent Decree was signed requiring the potentially responsible parties to perform the cleanup design and actions.

Environmental Progress

The initial actions to remove contaminated soils and debris, in addition to fencing the site, have reduced the potential for exposure to hazardous materials at the Geigy Chemical Corporation site while cleanup activities are being designed.

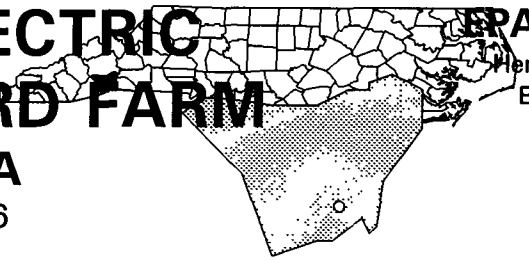
Site Repository

Aberdeen Town Hall, 115 North Poplar Street, Aberdeen, NC 28315

GENERAL ELECTRIC CO./SHEPHERD FARM

NORTH CAROLINA

EPA ID# NCD079044426



EPA REGION 4
Henderson County
East Flat Rock

Site Description

The General Electric Co./Shepherd Farm site consists of the 50-acre General Electric property and a 3-acre dry pond or ravine known as Shepherd Farm, located 2,500 feet southwest of the General Electric plant. Since 1955, the Lighting System Division of General Electric has manufactured various types of luminaire systems at the site. Wastes resulting from these production processes were disposed of at Shepherd Farm from 1957 to 1970. The disposal process involved burning the wastes and then bulldozing them into the ground. Wastes were also disposed of at the Seldon Clark property, located across the street from General Electric; other nearby areas may have received wastes from General Electric. The EPA, the State, and General Electric conducted studies between 1976 and 1989 that identified site contaminants and pathways of contaminant migration. Site contaminants were later discovered in off-site private wells. This migration of contaminants is believed to have resulted from the rupture of a drainline that carried wastewater from the manufacturing plant to the treatment ponds. Residences that used contaminated wells were connected to the municipal water supply or were provided with bottled water. Other wells within 4 miles of the site once supplied drinking water to an estimated 4,400 people; the nearest of these wells is within a mile of the site. A trailer park is now located on a portion of the old dump.

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

NPL Listing History
Proposed Date: 02/07/92

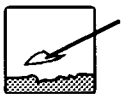
Threats and Contaminants

On-site and off-site groundwater and sediments are contaminated with various heavy metals and volatile organic compounds (VOCs). On-site wastewater treatment ponds and sludge impoundments are contaminated with polychlorinated biphenyls (PCBs) and heavy metals, including chromium, copper, lead, nickel and zinc. PCBs also were detected in the soil of the trailer park.

Cleanup Approach

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

Response Action Status



Immediate Actions: Residences using contaminated water from private wells were connected to the municipal water supply or supplied with bottled water.

Entire Site: EPA began a study of the nature and extent of site contamination in early 1994. The study is expected to be completed in late 1995, at which time a remedy for addressing site contamination will be selected.

Site Facts: Interim Status under Subtitle C of the Resource Conservation and Recovery Act (RCRA) was granted to the General Electric plant in 1980, when they filed a RCRA permit application. In 1984, General Electric became a RCRA hazardous waste generator.

Environmental Progress

A municipal water supply has been provided to residents. Initial site investigations indicate that the General Electric Co./Shepherd Farm site poses no immediate threat to the health and safety of the nearby population while investigations are underway and activities are being planned for cleanup of the site.

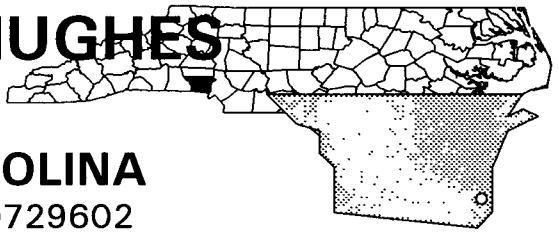
Site Repository

Henderson County Public Library, Main Branch, 301 N. Washington Street, Hendersonville, North Carolina 28792. Telephone 704/697-4725

JADCO-HUGHES FACILITY

NORTH CAROLINA

EPA ID# NCD980729602



EPA REGION 4

Gaston County
Belmont
15 miles west of
Charlotte, NC

Site Description

From 1971 to 1975, C.A. Hughes operated a solvent reclamation and storage facility at this 6-acre site in Belmont. Workers reprocessed chemical waste from industries to recover whatever could be resold, storing the residues on the site. In 1975, Jadco, another firm, leased the site, equipment, and operation. A large quantity of drums had accumulated by 1975, when operations ceased. The drums, in various stages of decay, were stacked at several locations. The site also held several large storage tanks. By 1978, up to 18,000 drums were removed. Contaminated soil and debris were placed in an unlined landfill on site, and the site was regraded. In 1983, bulk storage tanks and other drums were removed; however, spillage and leakage resulted in contamination of the soil predominantly with organic solvents and partially with heavy metals. In 1984, an estimated 4,700 people used wells within 3 miles of the site as a source of drinking water. Roughly 40 to 50 residences lie within a 1,000-foot radius of the site, with the closest being 50 feet away. All homes have access to a public water supply, although some residents may still be using water from private wells. Migration of contaminants into groundwater is likely, because the landfill is unlined and only 6 feet above the water table. A ditch that drains the site flows into the Catawba River, and Belmont's drinking water intake is 2 1/2 miles downstream from the confluence of the river and ditch. Trace amounts of site-related contaminants have been detected in a private well that is no longer in use.

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

NPL LISTING HISTORY
Proposed Date: 10/01/84
Final Date: 06/01/86

Threats and Contaminants

On-site sediments contain heavy metals including chromium, lead, and nickel. Polychlorinated biphenyls (PCBs) in contaminated sediments and soils were cleaned up in one area of the site, but remain a concern site-wide. PCBs and nickel have been found in sediments off site. The soil contains heavy metals and volatile organic compounds (VOCs) including methylene chloride and toluene. On- and off-site surface water has been shown to be contaminated with metals such as barium and dichloroethane. Groundwater is contaminated with VOCs and heavy metals including lead, nickel, barium, and beryllium. People may be harmed by direct contact with contaminated surface water, sediments and soil or by drinking contaminated water. Migration of contaminants to the groundwater is a priority concern.

Cleanup Approach

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

Response Action Status

Initial Actions: In 1990, PCB-contaminated soils and sediments were removed from the southeastern swale area of the site.

Entire Site: Under the EPA's monitoring, the parties potentially responsible for contamination at the site began a study of its pollution problems in 1986. This investigation was completed in 1990. The EPA selected a remedy which includes treatment of soils using soil vacuum extraction and soil flushing techniques. Groundwater will be pumped and treated and disposed of either in a local wastewater treatment plant or in a tributary, in accordance with national discharge permits. Surface water will be re-routed and the culvert repaired to eliminate surface water contamination. The technical design of the remedy is underway, and is scheduled to be completed in 1995.

Site Facts: The North Carolina Department of Justice issued a complaint requiring Jadco-Hughes to remove waste from the site some time in or after 1975. The potentially responsible parties conducted a study to determine the type and extent of contamination under a Consent Order.

Environmental Progress

Excavation and disposal of the PCB-contaminated soil and sediments at the southeastern swale area has reduced the potential for direct contact while engineering designs for the cleanup of remaining contamination are being conducted.

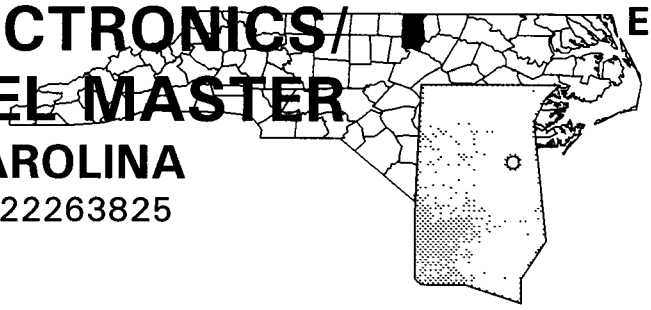
Site Repository

Gaston County Public Library, Belmont Public Library Branch, 111 Central Avenue, Belmont, NC 28012

JFD ELECTRONICS/ CHANNEL MASTER

NORTH CAROLINA

EPA ID# NCD122263825



EPA REGION 4

Granville County
Oxford

Site Description

From 1962 to 1979, JFD Electronics manufactured television antennas at this 13-acre site on Industrial Drive in Oxford. The owners built a ½-acre lagoon in 1964 to 1965 to dispose of sludge generated by wastewater treatment. A chromate conversion process and copper/nickel electroplating generated most of this wastewater. When Channel Master bought the property in 1980, the company filled half the lagoon and used it as a truck parking lot. The problem appears to be associated with leaking underground tanks of spent solvents used by the former owner and contaminated sludge and soil associated with the former lagoon. Approximately 2,500 people get their drinking water from private wells within 3 miles of the site; the closest is about 2,000 feet to the southeast. The site also drains to an unnamed tributary of Fishing Creek, which is used for recreational fishing.

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

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 10/04/89

Threats and Contaminants

Volatile organic compounds (VOCs) were detected in both on- and off-site shallow and deep monitoring wells. VOCs are contaminating the groundwater, soil, surface water, and sediments. People could be at risk if they accidentally ingest or come in direct contact with the contaminated groundwater, soil, surface water, and sediments.

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

Immediate Actions: Channel Master conducted several studies of the site in 1985 and 1986. After identifying the sludge lagoon and several underground tanks as sources of contamination, Channel Master performed a cleanup in 1987 and 1988. Under State supervision, Channel Master removed leaking underground storage tanks that contained spent solvents, treated contaminated soil on site, and excavated the sludge from the sludge lagoon and appropriately disposed of it off site. A second study partially characterized the VOC contamination in the groundwater.

Entire Site: The EPA completed the investigation into the nature and extent of contamination in the spring of 1992, and selected a remedy in the fall of 1992. The remedy includes the excavation and on-site treatment of approximately 3,000 cubic yards of soil contaminated by sludge from metal-plating operations, and the installation of a groundwater pump and treat system to clean up VOC-contaminated groundwater. The remedy is currently being designed by the responsible parties.

Site Facts: The potentially responsible parties signed a Consent Decree in September 1993 to perform the remedy designs and cleanup activities under EPA oversight.

Environmental Progress

The removal of leaking underground storage tanks and sludge, as well as the early soil treatment, have reduced immediate threats to the surrounding community or the environment while cleanup activities are being planned.

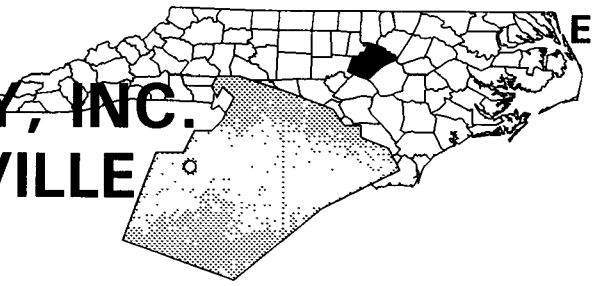
Site Repository

Granville County Library System, Richard H. Thorton Library, Main and Spring Streets, Oxford, NC 27565

KOPPERS COMPANY, INC. (MORRISVILLE PLANT)

NORTH CAROLINA

EPA ID# NCD003200383



EPA REGION 4
Wake County
1 mile northwest of
Morrisville

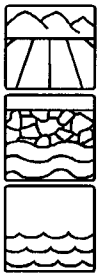
Site Description

The Koppers Company, Inc. (Morrisville Plant) site covers 52 acres and was used as a saw mill until 1959 when it was sold to Unit Structures, Inc., which produced glue-laminated wood products. Koppers Company purchased the site in 1962 and continued the glue-laminated process. From 1968 to 1975, Koppers treated wood with pentachlorophenol (PCP) at the site. Wastewater from the PCP process was discharged to an on-site pond for the first 6 months of operation and then to two unlined lagoons nearby. The owners closed the lagoons in 1977 and sprayed the liquids that remained in them over a field on the northeastern corner of the property. They mixed the sludge with soil and spread it over the lagoon area. In 1982, the owners found PCP in on-site soil, wells, pond water, and sediment. Koppers sold the plant to an unrelated company that retained the name Unit Structures, Inc. Koppers, however, kept 10 acres of the original site where PCP was used. Unit Structures, Inc. still is an active facility. Groundwater within 3 miles of the site is a source of drinking water for 2,200 people. The North Carolina Solid and Hazardous Waste Branch detected trace contaminants in some off-site wells. Koppers installed over 3 miles of public water lines to residences where PCP or isopropyl ether was detected in the drinking water. Water from the northeastern corner of the site drains toward Crabtree Creek, 2 miles away. Water from the southeastern corner drains to Koppers Pond, which was used for fire protection. Occasional overflow from Koppers Pond reaches Medlin's Pond.

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

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 03/31/89

Threats and Contaminants

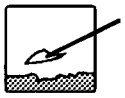


Soil, groundwater, surface water, and sediments are contaminated with PCP. Dioxins and furans also are found on site. The site is unfenced, making it possible for people and animals to come into direct contact with contaminated soils or water. Possible health threats include coming into direct contact with or accidentally ingesting any of these contaminated materials.

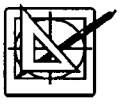
Cleanup Approach

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

Response Action Status



Emergency Actions: In 1980 and 1986, Koppers removed soil contaminated with PCP from the lagoon area and transported it to an EPA-approved hazardous waste facility. Soil contaminated with other chemicals remains on the site. In 1989, under EPA oversight, more than 3 miles of public water supply lines were extended by Koppers to affected homes near the site.



Entire Site: In 1989, under EPA supervision, the parties potentially responsible for site contamination began a thorough study of the type and extent of soil and water pollution at the site. Additional fieldwork was conducted to define the extent of dioxins in soils, and to confirm earlier groundwater study results. Reports were finalized in mid-1992. The remedy, selected in late 1992, calls for off-site incineration as the preferred alternative for treating dioxin and pentachlorophenol. The remedy also included a treatability study of the Base Catalyzed Decomposition (BCD) innovative technology that would be conducted to determine its effectiveness on the contaminants of concern. The treatability study was conducted in the summer of 1993. The public was invited to an open house and viewing of the BCD technology in operation. Based on the results from the treatability study, the Agency selected BCD treatment technology to treat on-site soil. Groundwater will be pumped and treated. The potentially responsible parties are currently designing the remedy.

Site Facts: Three Administrative Orders were issued to the potentially responsible party to install a water line, to conduct site investigations, and to conduct remedy design and cleanup actions.

Environmental Progress

The emergency removal of soil and provision of an alternate water supply have reduced the potential for exposure to contaminants at the site or through the drinking water supply while cleanup activities are being planned.

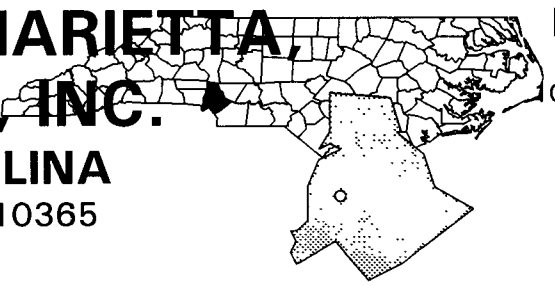
Site Repository

Wake County Dept. of the Public Library, Cary Public Library Branch, 310 South Academy St., Cary, NC 27511

MARTIN-MARIETTA, SODYECO, INC.

NORTH CAROLINA

EPA ID# NCD001810365



EPA REGION 4
Mecklenburg County
10 miles west of Charlotte

Site Description

Chemical dyes have been made since 1936 on the 1,300-acre Martin-Marietta site. Opened by Sodyeco, the plant was taken over by American Martin-Marietta in 1958 and sold to Sandoz Chemicals Company in 1983. The plant has manufactured liquid sulfur and vat and disperse dyes, as well as other chemicals from various industries. The first indication of potential contamination at the site was the discovery in 1980 of organic solvents in the company's drinking water well and nearby private wells. On-site disposal of distillation tars and dye clarification cake resulted in extensive groundwater and soil pollution. Analysts traced the source of contamination to three trenches of buried wastes. The company excavated the wastes and disposed of them off site. It was later realized that five areas on the site are probable sources of soil and groundwater contamination. Area A operated as a landfill between the 1930s and 1974. It accepted sulfur residues and dyes, fiber clothes, empty metal and cardboard drums and cartons, non-acidic and non-flammable chemicals, chemical wastes, and construction debris. This area currently is covered with asphalt and buildings. Area B operated as a landfill from 1973 to 1978 and received wastes previously sent to Area A. Area B was being used as a parking lot covered with gravel. Area C, now a grassy area, once contained the remains of laboratory and production samples, distillation tars, and waste solvents. These are the trenches cleaned up in the early 1980s, but available analytical techniques allowed some soil contamination to go undetected. Area D contained two wastewater settling ponds that have been taken out of service. This area currently holds a lined freshwater pond and a fuel oil storage tank. Area E is a drainage basin receiving discharge from the old plant manufacturing area. No wastes are known to have been deposited there. Approximately 4,500 people in Mount Holly live directly across the river from the site, and the City of Belmont, with 4,600 people, is 3½ miles downriver. Belmont's public water intake is downstream of the site. The residents of Mount Holly and Belmont depend upon local groundwater for drinking water.

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

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

Threats and Contaminants

On-site groundwater and soil are polluted with volatile organic compounds (VOCs). Groundwater contamination is worst at Areas C, D, and E. Soil contamination is highest in Areas C and D; the soil at Area E is uncontaminated. Area residents are not at risk of being exposed to site contamination as a result of early excavation of dangerous wastes. However, the public drinking water supply could become polluted as groundwater contamination migration occurs. Groundwater discharges into the Catawba River, which is a source of drinking water for the plant and area residents.

Cleanup Approach

This 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

Initial Actions: Contaminated wastes and secondary soils were excavated and removed from the site.

Entire Site: The EPA selected a remedy for this site in 1987, which includes: extracting contaminated groundwater and treating it on site; discharging treated groundwater to an off-site stream; continuing cleanup until contaminated water meets cleanliness goals; capping Area B (the truck staging area) with asphalt to keep rainfall and runoff from spreading contaminants; and treating contaminated soil in Area C (trench area) on site to remove organic contaminants. Cleanup actions began in 1989 and are being performed by the potentially responsible parties, under EPA oversight. The asphalt cap has been completed in Area B. Extraction wells have been installed and are operating. The groundwater pump and treatment process has been expanded and may require operation until 1999. The cleanup of Areas C and D has begun. A full-scale vacuum extraction treatability study has been conducted on the remaining soils. The results are being compiled for effectiveness verification.

Environmental Progress

The cleanup actions undertaken so far, including groundwater treatment, removal of highly contaminated wastes and secondary soils, and capping of contaminated areas have reduced the potential for exposure to hazardous substances at the Martin-Marietta Sodyeco site.

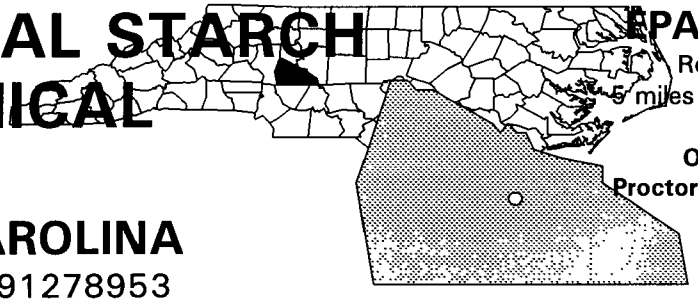
Site Repository

Mt. Holly Public Library, 245 West Catawba Avenue, Mt. Holly, NC 28120

NATIONAL STARCH & CHEMICAL CORP.

NORTH CAROLINA

EPA ID# NCD991278953



EPA REGION 4

Rowan County

5 miles south of Salisbury

Other Names:
Proctor Chemical Co. Inc.

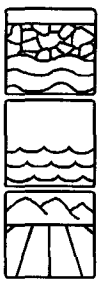
Site Description

The National Starch & Chemical Corporation (NSCC) site is located on a 500-acre parcel occupied by the NSCC-owned Cedar Springs Road Plant that currently manufactures textile finishing and specialty chemicals. From 1971 to 1978, NSCC disposed of approximately 350,000 gallons of reaction vessel wash waters in trenches constructed on a 5-acre tract of land located in the eastern portion of the NSCC property. Trenches in this area also received liquid waste from the plant, which was absorbed into the ground. After the absorption rate substantially declined, the trenches were backfilled and seeded. Unlined lagoons were constructed between 1969 and 1970. Site monitoring in 1976 and 1977 revealed shallow groundwater contamination adjacent to and within the trench area. Consequently, the North Carolina Department of Natural and Economic Resources requested that NSCC stop on-site waste disposal activities. Since 1978, production plant process waters have been pre-treated in a series of wastewater treatment lagoons near the production area and discharged to the Salisbury publicly owned treatment works (POTW). By 1984, all of the lagoons were lined with concrete. The production area and the wastewater treatment lagoons are located in the western portion of the NSCC property. The main areas of contamination identified at the site are the trench area in the eastern portion of the property, the wastewater treatment lagoons, and the production area and the terra-cotta pipeline transporting the wastestream from the production area to the wastewater treatment lagoons in the western portion of the property. The contaminated soil excavated from beneath the lagoons was disposed of in the trench area. The buried terra-cotta pipeline was a continuing source of contamination until it was replaced with an overhead pipeline in early 1994. The plant is located in a rural area that depends heavily on wells for drinking water. Approximately 7,700 people use public and private wells within 3 miles of the site for drinking water and other domestic purposes. Since the site and the surrounding areas lie above a bedrock aquifer, drinking water from this source could become affected by site-related contaminants; however, no off-site contamination of groundwater or surface water has been detected.

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

NPL LISTING HISTORY
Proposed Date: 04/01/85
Final Date: 10/04/89

Threats and Contaminants



The groundwater, surface water, and sediments are contaminated with heavy metals and volatile organic compounds (VOCs). Residual contamination still remains in subsurface soils. The soil is contaminated with VOCs and some metals. People who accidentally ingest or come into contact with the contaminated groundwater, surface water, sediments, or soil may be exposed to a potential health threat.

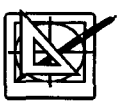
Cleanup Approach

The site is being addressed in four long-term remedial phases focusing on groundwater, soil, surface water, and source control.

Response Action Status

Groundwater: In 1988, the EPA selected a remedy to address the contaminated groundwater emanating from the trench area. After design of the remedies was completed in 1990, cleanup actions began. The groundwater extraction and treatment systems have been constructed. The peripheral extraction wells have been operating while the trench area extraction wells have not yet been activated. The extracted groundwater will be pretreated on-site prior to being discharged to the Salisbury publicly owned treatment works. It is estimated that groundwater cleanup in this portion of the site will take over 30 years.

Soil: A "no action" remedy was selected in 1990. The remedy for the groundwater will capture and remove the contamination that is naturally flushed from the contaminated soils in the trench area. As a result, no further cleanup of the soils will be required.



Surface Water/Northeast Tributary: In the fall of 1993, the potentially responsible parties completed a study to address the contaminated groundwater found beneath the wastewater treatment lagoons, in the production area, and discharging into the Northeast Tributary. In late 1993, the EPA selected a remedy which required construction of a groundwater extraction system in each area. The extracted groundwater will be pretreated using air stripping prior to entering into the existing wastewater treatment system. Following air stripping, the extracted groundwater will flow through the existing wastewater treatment lagoons, with final discharge into the Salisbury publicly owned treatment works. The design for this system is expected to be completed by the fall of 1995. It is anticipated it will take over 100 years to achieve the specified cleanup goals.

Source Control: In late 1994, the potentially responsible parties completed a study to address the contaminated soil found beneath the wastewater treatment lagoons and the production area. The study concluded that natural dissipation of the contaminants in the soil in these areas was occurring. The remedy requires a study to be completed within two years to verify this conclusion. In the event that natural dissipation is not effective, soil vapor extraction systems will be installed to remove the contaminants from the soils in these areas.

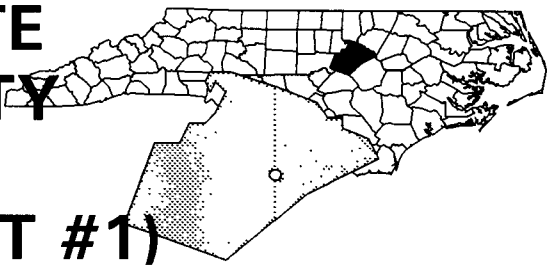
Environmental Progress

After adding the National Starch & Chemical Corp. site to the NPL, the EPA determined that the site does not pose an imminent threat to the surrounding community or the environment while the cleanup actions are taking place.

Site Repository

Rowan Public Library, 201 West Fisher Street, Salisbury, NC 28144

N.C. STATE UNIVERSITY (LOT 86, FARM UNIT #1)



EPA REGION 4
Wake County
Raleigh

NORTH CAROLINA

EPA ID# NCD980557656

Site Description

The 1½-acre North Carolina State University site is situated to the north of Carter-Finley Stadium in Raleigh. The site was used by the North Carolina State University science laboratories and agricultural research facilities as a waste disposal area. From 1969 to 1980, the University disposed of solvents, pesticides, heavy metals, acids, and some low-level radioactive laboratory wastes. The wastes are buried in containers that are placed in 10-foot trenches. Analysis of groundwater from the wells indicates the presence of high levels of organic contamination. The site is completely fenced and is located approximately 100 feet away from any public access point. The closest residence is approximately 2,000 feet away from the site. Approximately 150,000 people live within 4½ miles of the site. Most of these residents use city-supplied water, which is not contaminated. However, there are a few residents who use groundwater from private wells.

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

NPL LISTING HISTORY
Proposed Date: 10/05/84
Final Date: 06/10/86

Threats and Contaminants

The groundwater is contaminated with various volatile organic compounds (VOCs) and heavy metals including lead. Ingesting and coming in direct contact with contaminated groundwater is a potential health hazard.

Cleanup Approach

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

Response Action Status

Entire Site: The University's Department of Marine, Earth, and Atmospheric Sciences has monitored the site extensively since 1981. The EPA began conducting an investigation into the nature and extent of the contamination at the site in 1987. The potentially responsible party took over the investigation in 1992. A remedy is expected to be selected in 1995.

Environmental Progress

After adding this site to the NPL, the EPA performed preliminary investigations and determined that the North Carolina State University site posed no immediate threats while investigations are taking place.

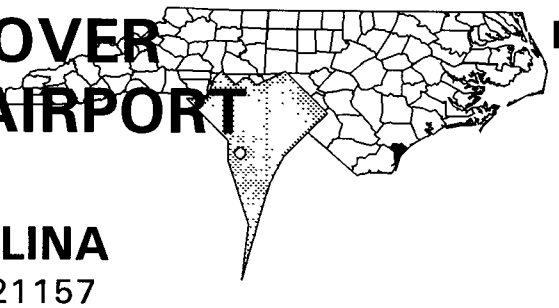
Site Repository

Cameron Village, Regional Public Library
O.H. Hoi Library, N.C. State University

NEW HANOVER COUNTY AIRPORT BURN PIT

NORTH CAROLINA

EPA ID# NCD981021157



EPA REGION 4
New Hanover County
Wilmington

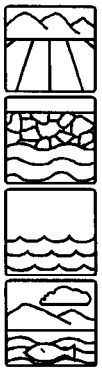
Site Description

The New Hanover County Airport Burn Pit was constructed by the County in 1968. From 1968 to 1979, the Cape Fear Technical Institute used the pit for fire-training purposes, burning jet fuel and gasoline in the burn pit, and extinguishing the fires with water. The Wilmington Fire Department used the burn pit for fire-training purposes from 1968 to 1976. Jet fuel and drainage from petroleum fuel storage tanks in the area were burned, and the fires were extinguished with water, carbon dioxide, and dry chemicals. Some time prior to 1982, materials used in river spill cleanups were dumped into the pit. In addition, fuel oil, kerosene, and oil from oil spill cleanups were burned in the pit. The pit held approximately 22,500 gallons, of which 85 percent is water. In 1986, the North Carolina Division of Health Services discovered heavy metals in the soil around the pit and numerous organics in other soil samples. Surface water within 3 miles downstream of the site is used for recreational activities, and there is an estuary wetland approximately 1 mile from the site at the probable point of runoff from the site. Approximately 6,300 people obtain drinking water from public and private wells within 3 miles of the site. A private well is approximately 1,500 feet to the northwest of the site.

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

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 03/31/89

Threats and Contaminants



The soil and groundwater are contaminated with heavy metals, volatile organic compounds (VOCs), and petrochemicals. Sludges are contaminated with barium. There is a possible health threat from direct contact with the soil. Direct contact with, or accidental ingestion of, contaminated water in a nearby creek may be a health threat as well. An estuary wetland is located approximately 1 mile from the site.

Cleanup Approach

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

Initial Actions: In 1990, the potentially responsible parties, under EPA supervision, removed approximately 2,000 cubic yards of sludge and soils, piping, tanks, and training structures from the site.

Entire Site: In 1992, an investigation of the nature and extent of site contamination and a study of alternatives for cleaning up the site contaminants was completed. The EPA selected a remedy, which includes a groundwater extraction system, an air stripping process to remove volatile organics, and a pipeline discharging the treated groundwater to a publicly owned treatment works. The potentially responsible parties are currently designing the remedy. Cleanup activities are expected to begin in late 1995.

Site Facts: A Consent Order for removal of the contaminants by the potentially responsible parties was signed in June 1990. In September 1992, EPA issued a draft Consent Decree in May 1993, and a Unilateral Administrative Order for the potentially responsible parties to perform the remedy design and cleanup site contamination on March 1, 1994.

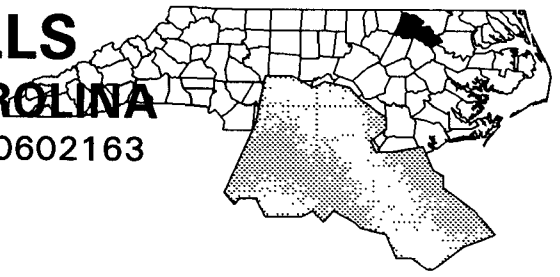
Environmental Progress

The removal of sludge, soils, and debris from the New Hanover County Airport Burn Pit site has reduced the threat of exposure to contaminants while final cleanup activities are being planned.

Site Repository

New Hanover County Public Library, 201 Chestnut Street, Wilmington, NC 28401

PCB SPILLS
NORTH CAROLINA
EPA ID# NCD980602163



EPA REGION 4
Halifax and 13 counties
243 miles of N.C. highway

Site Description

The PCB Spills site falls along 243 miles of highway where 30,000 gallons of waste transformer oil contaminated with polychlorinated biphenyls (PCBs) were deliberately discharged in several areas along the shoulders of the highway in 14 counties of North Carolina. The State conducted several studies and determined that contaminants did not travel from the discharge areas into surrounding areas, including rivers, lakes, or streams. Therefore, the populations surrounding these numerous locations and the plant and animal life have not been affected.

Site Responsibility: This site was addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83
Deleted: 03/07/86

Threats and Contaminants

The soil was contaminated with PCBs. After cleanup investigations were completed, it was determined that contamination did not move from the discharge areas into surface water, plant life, or groundwater; therefore, there was no health threat associated with the spills.

Cleanup Approach

Response Action Status

Entire Site Area: In 1982, the EPA and the State of North Carolina initiated cleanup actions to: construct a landfill for disposal of PCB waste; remove, transport, and dispose of contaminated soils; and reconstruct the highway shoulders. The disposal of contaminated soil was completed in 1982, and the landfill was capped, graded, and vegetated. Sampling was conducted during cleanup at the beginning and ending points of the contaminated strips to ensure that all contaminated soils were removed. Random samples were collected from the areas after soils were removed. No soils contaminated with PCBs above the accepted levels were left in place. These areas then were excavated and filled with clean soil. As a result of the completed cleanup actions and the elimination of site contamination, the EPA, in consultation with the State, deleted the site from the NPL on March 7, 1986.

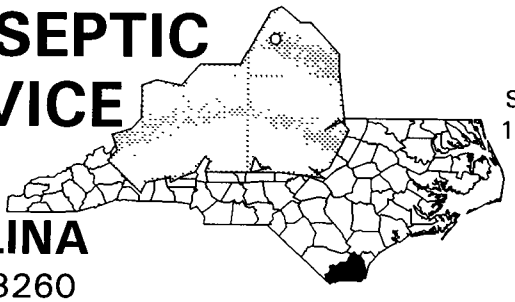
Environmental Progress

The contaminated soil from the spill area was excavated and moved to a closely monitored landfill. Testing indicated no contamination was present in the groundwater, surface water, or plant or animal life in the area of the PCB spill. The site is once again safe for the public and the surrounding environment and has been deleted from the NPL.

POTTER'S SEPTIC TANK SERVICE PITS

NORTH CAROLINA

EPA ID# NCD981023260



EPA REGION 4

Brunswick County
Sandy Creek, approximately
18 miles west of Wilmington

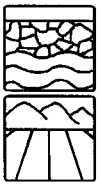
Site Description

The Potter's Septic Tank Service Pits site covers 5 acres of land. In 1976, the U.S. Coast Guard was notified of an oil spill in Rattlesnake Branch Creek. The Coast Guard and the North Carolina Department of Natural and Economic Resources traced the oil spill to one of the four disposal pits at the site. In 1983, the present owner informed the North Carolina Department of Human Resources that he had uncovered sludge in his front yard. The State found contaminants in his well and shut it down. The EPA found contaminants in the soil and groundwater on the site. Approximately 1,800 people obtain drinking water from private wells within 3 miles of the site.

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

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 03/31/89

Threats and Contaminants



The groundwater is contaminated with volatile organic compounds (VOCs) including benzene and xylene, phenols, and other petroleum compounds. The soil is contaminated with heavy metals, chloroform, phenols, VOCs, and other petroleum compounds. People who use contaminated well water may be at risk. Direct contact with contaminated soil was a health threat, especially to children playing in the area, before the removal of contaminated soil and sludge.

Cleanup Approach

This 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

Initial Actions: The U.S. Coast Guard and the North Carolina Department of Natural and Economic Resources removed 40,000 gallons of oil from the creek and the disposal pits, as well as 150 truckloads of oil sludge and oil-stained soil. Thick oil sludge that could not be removed was mixed with sand and buried on the site. In 1984, the EPA removed approximately 3 million pounds of contaminated soil from the site and transported it to a federally-approved hazardous waste facility.

Entire Site: The EPA completed an investigation into the nature and extent of contamination at the site in 1992. In the summer of 1992, the EPA selected a remedy which provides for cleanup of soil and groundwater at the site. The remedy includes: extracting groundwater and treating it on site using an above-ground treatment process consisting of precipitation, flocculation, and filtration to remove metals; air stripping to remove VOCs, with discharge of the treated water to Chinnis Branch; on-site contaminated soil treatment using a low temperature thermal desorption unit, testing to determine whether concentrations of heavy metals exceed cleanup standards and, if so, stabilizing the soil stabilized using off-site soil treatment. The design of the remedy has been completed, and the EPA began cleanup actions in late 1994.

Environmental Progress

The initial soil and sludge removal actions described above have reduced the possibility of direct contact threats from contaminated soil at the Potter's Septic Tank Service Pits site while final cleanup activities are taking place.

Site Repository

Columbus County Library, Route 2, Highway 87, Riegelwood, NC 28456